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## FISHERIES DEPARTMENT POLICY NOTE 2017–2018

"This Government, following the foot prints of Hon'ble Amma, continues to implement several welfare schemes to improve the living standard of Fishermen."

> Honourable Chief Minister Thiru Edappadi K. Palaniswami speech on 06.03.2017

## 1. INTRODUCTION

Tamil Nadu is blessed with rich and diverse aquatic resources and is one of the leading States in India with respect to Fisheries Development. The Fisheries resources in the State provide livelihood to more than ten lakh fishermen including those who involve in inland and brackish water fishing. The Fisheries resources of the State are being managed scientifically and sustainably in accordance with the Fisheries policy of the State. Substantial focus and emphasize are being provided by the Government of Tamil Nadu on the economic and social dimensions of these resources. The Government accords utmost priority for the safety and well being of the fishermen of Tamil Nadu. Augmenting productivity in a sustainable manner and providing quality value addition for the betterment of the livelihood and living standard of our fishermen are the core of all policy initiatives put forth by this Government.

The Government is committed to provide safe, secured and enhanced livelihood opportunities, shore infrastructure facilities on par with international standards, facilities to encourage quality enhancement of seafood resulting in value addition, diversification of fishing efforts into deep sea for and a strong

social security net for improving the quality of life of our fishermen populace.

During 2011, the Government enhanced the Fishing Ban period relief assistance from Rs.2,000/-. Considerina Rs.1,000/-to the livelihood concerns of the fishermen, the again enhanced Government relief the assistance from Rs.2,000/- to Rs.5,000/- to each marine fisherman family during 2016-17. The Government introduced a new Scheme of disbursement of Special Allowance of Rs.4,000/each to the marine fishermen families since 2011 which has been enhanced to Rs.5,000/each during 2016-17.

The Government of Tamil Nadu is committed to protect the traditional fishing rights of our fishermen. Even though the Sri Lankan Navy continues to infringe upon the rights of our fishermen in the Palk Bay area, the Government

is taking earnest steps to ensure that our fishermen lead their livelihood peacefully. The fourth round of fishermen level talks between the fishermen representatives of Tamil Nadu and Sri Lanka was facilitated by the Government of Tamil Nadu and was convened at New Delhi on 02.11.2016. The plight of our fishermen in Palk bay was highlighted in the Joint Working Group Meeting in New Delhi held on 31.12.2016, 07.04.2017 and in the Ministerial meeting held at Colombo, Sri Lanka on 02.01.2017.

The prolonged incarceration of our fishermen and their fishing boats by the Sri Lankan Government is causing a sense of anxiety and insecurity among the fishermen community of Tamil Nadu. As a way forward, a set of activities have been undertaken for diversification of Trawlers from the Palk Bay area and providing alternate livelihood for the fishermen in Palk Bay area. It has been decided

to extend 70% (Central Govt 50% & State Govt 20%) subsidy assistance to the fishermen for Diversification of trawl fishing boats of Palk Bay into Deep Sea fishing boats. During the year 2017-18, Rs.286 crore (GoI - Rs.200 crore and State Government - Rs.86 crore) has been allocated as subsidy assistance for construction of 500 Deep Sea Tuna long liners cum gill netters. In this scheme, priority will be given to the fishermen who were affected by the Sri Lankan Navy. Construction of a modern fishing Mookaiyur, Ramanathapuram harbour at District, at an estimated cost of Rs.113.90 crore, has commenced to promote deep sea fishing by fishermen of Palk Bay districts.

During 2016-17, construction of Fishing Harbours at Colachel, Chinnamuttom in Kanniyakumari District and at Nagapattinam were completed and inaugurated by the Hon'ble Chief Minister of Tamil Nadu.

Under this Government's initiative, 1,600 Distress Alert Transmitters (DAT), a satellite based beacon to transmit emergency conditions with precise Global Positioning System (GPS) based location details were provided which will ensure the immediate and effective rescue operation to save the life and fishing assets of our fishermen.

The World Bank has sanctioned Rs.321.30 crore for implementing Marine Fisheries Co-management, Improved Capacities Knowledge Management, Livelihood and of Establishment Seamless support, Communication Network and Improvements to civil infrastructure under Coastal Disaster Risk Reduction Project (CDRRP).

Aquaculture is emerging as a prominent income generating activity in rural areas. On integration with Agriculture, it will augment the unit productivity. The major thrust exerted by the Government during the past five years, the gap between demand and supply of fish seed has reduced from 8.73 crore during 2015-16 to 6 crore during 2016-17.

## 2. FISHERIES POLICIES AND ITS PERSPECTIVES

The major Fisheries policies of the Government of Tamil Nadu are as follows:

- Protecting the traditional fishing rights of the fishermen.
- Ensuring safety of the fishermen while fishing at sea.
- Providing social security to the fishers through various relief schemes.

- Improving the standard of living of the fishers by implementing several welfare schemes.
- Developing / strengthening the infrastructural facilities for hygienic handling and processing of fish and thereby promoting domestic and overseas market.
- Conserving the fishery resources by enforcing statutory regulations such as mesh regulation, preventing use of destructive gears, stock enhancement and establishing artificial fish habitats.
- Managing the fishery resources by offering diversified fishing options to the fishermen to exploit offshore/ deep sea resources, especially Tuna by providing financial assistance for deep sea fishing and establishing Mid-sea Fish carrier mother vessel.

- Promoting sustainable eco-friendly aquaculture practices / capture fisheries and foreign exchange earnings through export.
- Meeting the need for qualified manpower by Institutional strengthening of Fisheries training centres / Institutes.
- > Generating rural employment opportunity.
- > Strengthening the Fisheries Co-operatives.
- Affirming, effective, efficient and transparent administration.

## 3. MAJOR EVENTS/ACHIEVEMENTS OF FISHERIES DEPARTMENT DURING THE YEAR 2016-17

1. This Government enhanced the Special Allowance to marine fishermen families from Rs.4,000/- to Rs.5,000/- during 2016-17. Under this scheme, the Government sanctioned an amount of Rs.82.50 crore for the year 2017-18.

- Considering the livelihood concerns of the fishermen, this Government enhanced the fishing ban period relief assistance from Rs.2,000/- to Rs.5,000/- to each marine fisherman family during 2016-17. Under this scheme, the Government sanctioned an amount of Rs.83.17 crore for the year 2017-18.
- 3. In the Budget Speech for the vear Hon'ble 2017-18, the Minister for Fisheries, Finance and Personnel & Administrative Reforms, has announced that the enhancement of relief provided under both the National Saving-cum-Relief Scheme for marine fishermen and the Tamil Nadu Saving-cum Relief Scheme for fisherwomen from Rs.2,700/to Rs.4,500/- by suitably increasing the State contribution.
- 4. The fourth round of fishermen level talks between the fishermen representatives of Tamil Nadu and Sri Lanka was facilitated by the Government of Tamil Nadu and convened at New Delhi on 02.11.2016.

- The plight of our fishermen was highlighted during the Joint Working Group Meeting in New Delhi held on 31.12.2016, 07.04.2017 and the Ministerial meeting at Colombo, Sri Lanka on 02.01.2017.
- 6. Due to the relentless pursuit of the Government of Tamil Nadu, 290 fishermen from the Sri Lankan custody and 23 fishermen from Ajman Jail, United Arab Emirates were released and repatriated to Tamil Nadu during 2016. Further, in the year 2017 (up to 27.06.2017), 30 fishermen arrested by Iran coast Guard and 123 fishermen from Sri Lankan custody were released and repatriated to Tamil Nadu.
- 7. The 18 apprehended and drifted boats belonging to fishermen of Ramanathapuram district, kept under prolonged detention without maintenance by the Sri Lankan Navy had sunken in Sri Lankan waters across the period of apprehension. Considering the poor economic condition of the fishermen and

the unsalvageable condition of their boats, the Hon'ble Chief Minister of Tamil Nadu ordered relief assistance of Rs.5 lakh each to a total sum of Rs.90 lakh from CMPRF and was disbursed to the beneficiaries on 19.04.2017.

- The Government introduced a scheme of subsidy assistance subject to maximum of Rs.56 lakh (70%) and sanctioned a sum of Rs.286 crore (Government of India – Rs.200 crore and State Government – Rs.86 crore) for construction of 500 Tuna long liners cum gill netters for diversifying trawl fishing from Palk Bay into deep sea fishing for the year 2017-18.
- Relief assistance of Rs.4.25 crore under CMPRF was released to 155 families of fishermen who had died or were missing or were repatriated. A total sum of Rs.3.47 crore was given to 104 fishermen families during 2016 and Rs.78 lakh to 51 fishermen families during 2017 (up to 30.06.2017).

- 10. In accordance with the announcement made by the Hon'ble Minister for Fisheries, Finance and Personnel & Administrative Reforms during the Budget Speech 2017-18, the Government enhanced the quantity of sales tax exempted diesel from 15,000 18,000 litres to litres per mechanized fishing boat per year and from 3,600 litres to 4,000 litres per motorized country craft per year. The Government also enhanced the quantity of sales tax exempted industrial kerosene supplied at the subsidized rate of Rs.25 per litre from 3,000 litres to 3,400 litres per motorized country craft per year.
- 11. Administrative Sanction for an amount of Rs 113.90 crore has been accorded for construction of fishing harbour at Mookaiyur in Ramanathapuram District and the work is under progress.
- 12. Under this Government's innovative initiative 1,600 Distress Alert Transmitters (DATs) have been provided to fishermen at a cost of Rs. 2.38 crore in 2016-17 to

alert the authorities through satellite communication when the fishermen are at distress in the sea to save their lives and their fishing implements.

- 13. For implementing Marine Fisheries Co-management, Improved Capacities and Knowledge Management, Livelihood Establishment of support, Seamless Communication Network and Improvements infrastructure, to civil sanction for an amount of Rs.321.30 crore has been accorded by World Bank under Coastal Disaster Risk Reduction Project (CDRRP).
- 14. The Department of Fisheries deputed 15 officials to Vietnam and 4 officials to Australia for acquiring knowledge on latest developments in Fisheries Co-Management practices adopted in the respective countries.
- 15. To ensure the safety of marine fishermen at sea, the department supplied 49,500 Lifebuoys free of cost, to the motorised

traditional fishing crafts of 13 coastal districts.

- 16. As an alternate livelihood activity, 10 marine cages were installed in Kancheepuram, Ramanathapuram and Kanniyakumari districts. Totally 5.42 tons of fish were harvested in the cages and Rs.16.95 lakh was realized as revenue, by the beneficiaries.
- 17. In order to provide relief and restore livelihood activities of fishermen of Tiruvallur, Chennai and Kancheepuram districts affected by the tropical cyclone 'Vardah', the Government has released relief assistance of Rs.19.13 crore.
- 18. The Fishing Harbours at Colachel, Chinnamuttom (Kanniyakumari District) and Nagapattinam were completed and inaugurated by the Hon'ble Chief Minister of Tamil Nadu.
- 19. In-principle sanction has also been accorded by this Government for the construction of a fishing harbour at

Manakudy in Kanniyakumari District on Public Private Partnership (PPP) under Design, Build, Finance, Operate and Transfer (DBFOT) basis.

- 20. This Government has taken up modernization of various fish markets with an outlay of Rs.14.25 crore in major towns/cities of Tamil Nadu.
- 21. Due to the major thrust exerted by the Government for fish seed production during the past five years, the gap between demand and supply of fish seed has reduced from 8.73 crore during 2015-16, to 6 crore during 2016-17.
- 22. The Government, on war footing constructed a temporary fish market at Nadukuppam at a cost of Rs. 14.43 lakh and construction of permanent fish market is in progress. The Government also sanctioned Rs.32.75 lakh as relief assistance to the affected fishermen after the 'Jallikattu' related violence.

- 23. The Government accorded sanction for Rs.15 crore towards disbursement of interim relief assistance of Rs.5,000/- per family to those 30,000 fishermen families, whose livelihood got affected due to oil spill in the districts of Thiruvallur, Chennai and Kancheepuram. The Honourable Chief Minister disbursed the relief assistance to the fishermen families on 06.03.2017.
- 24. The Government accorded sanction for the construction of 2 fish markets in Thiruvallur and Chennai districts at an estimated cost of Rs.75 lakh received from CSR(Corporate Social Responsibility) fund of the shipping company which was responsible for the accident.
- 25. In continuation of the announcement made by Hon'ble Chief Minister for "Imparting special training to the twelfth passed fisher youth to assist them in joining Indian Navy and Indian Coast Guard as an alternative livelihood and employment opportunity, the Government

has sanctioned an amount of Rs.1.04 crore.

- 26. The Government has sanctioned Rs.4.92 crore for establishment of Fish Retail stalls, Mobile fish vending units and Centralized kitchen for preparing and marketing of value added fishery products through Tamil Nadu Fisheries Development Corporation Limited.
- 27. The Tamil Nadu Fisheries Development Corporation Limited has earned a Profit before tax of Rs.11.85 crore (unaudited) for the year 2016-17.
- 28. During the year 2015-16 the Tamil Nadu Fisheries Development Corporation Limited has paid a sum of Rs.1.82 crore to State Government as dividend and also paid Rs.1 crore to the Chief Minister's Public Relief Fund.
- 29. The MoU for four investment projects, facilitated by Tamil Nadu Fisheries University, worth of Rs.500 crore was signed during the Global Investors Meet

(GIM) 2015. These Projects are under various stages of progress.

30. The under graduate intake strength in Tamil Nadu Fisheries University has been enhanced from 80 to 110 to meet out the demand for professionally trained manpower in fisheries sector.

## 4. FISHERIES IN TAMILNADU - AN OVERVIEW

Fishery resources of Tamil Nadu are categorized as Marine, Inland and Brackish water resources. The Total fish production of Tamil Nadu during 2016-17 is estimated as 6.69 lakh tons. Tamil Nadu ranks 4<sup>th</sup> in total fish production of the country, besides exporting marine products of 79,336 MT and earning a foreign exchange of Rs.3,914.39 crore during 2016-17.

## 4.1 Marine Fisheries

Tamil Nadu State with the second longest coastline in the country has a coastal length of 1,076 km along the 13 coastal Districts. The marine fisher population in Tamil Nadu is 9.85 lakh, living in 608 fishing villages. The fishery resources of the inshore waters of 1,016 km length of the East coast and 60 km length of the West coast are on the threshold of maximum exploitation, whereas the offshore and deep sea resources are yet to be exploited to its optimum levels. The marine fish production of the State is presently estimated at 4.72 lakh tons.

An overview of the Marine Fisheries sector is given in Table-1.

Marine Fisheries Statistics- 2016-17					
Coastal length	1,076 km				
Exclusive Economic Zone	1.9 lakh sq. km				
(EEZ)					
Continental Shelf	41,412 sq. km				
Coastal Districts	13				
Fishing Villages	608				
Marine Fisherfolk	9.85 lakh *				
Population (Projected)					
Fishing Crafts Registere	ed (online): as on				
30.06.2017	F 0C1				
1.Mechanised Fishing boats	5,861				
2.Traditional Crafts					
(motorised and non- motorised)	35,666 (30,239+ 5,427)				
,					
Infrastructural Facilities					
Major Fishing Harbours	5 (Chennai, Thoothukudi				
	Chinnamuttom, Colachel				
	and Muttom (PPP))				
Major Fishing Harbours -	3 (Thengapattinam				
under construction	Poompuhar and Mookaiyur)				
Medium Fishing Harbours	4 (Pazhayar, Mallipatnam, Nagapattinam and				
	Cuddalore)				
Fish landing centres / Jetties	36				
Fish Landing Points	254				
Marine Fish Production	4.72 lakh tons*				
2016-17					
Marine Products Export	79,336 MT**				
(2016-17)	value				
	Rs.3,194.39 crore				

Table: 1Marine Fisheries Statistics- 2016-17

Source: \*Fisheries Statistics of Tamil Nadu, Fisheries Department \*\*Marine Product Export Development Authority (MPEDA)

## 4.2 Inland Fisheries

Tamil Nadu possess 3.83 lakh ha of effective inland water resources comprising of reservoirs, major irrigation tanks, minor irrigation tanks and short seasonal tanks and ponds, rivers, backwaters and derelict water bodies. The inland fisher population is 2.29 lakh. The erratic, scanty rain fall and the shorter duration of water retention in ponds and tanks necessitates the promotion of stocking of fast growing fish species such as Amur Carp, Genetically Improved Farmed Tilapia (GIFT), Jayanthi Rohu, Pangassius species etc. Table 2 provides an overview of Inland Fisheries sector of the State.

Table: 2			
Inland Fisheries Statistics- 2016-17			

Inland Fishery Resources	3.83 lakh ha.	
Reservoirs (78 Nos*)	62,015 ha.	
Large irrigation and short	2,65,819 ha.	
seasonal tanks		
Brackish water spread area	56,000 ha.	
Population of Inland Fishers	2.29 lakh	
(projected)		
Fish seed production		
centres		
i) Government Fish farm	8	
ii) Private Fish farm	49	
Fish seed rearing centres		
i) Government Fish farm	39	
ii) Private Fish farm	180	
Inland Fish Production	1.97 lakh	
2016-17	tons.	

 $\ast\,$  61 reservoirs taken over from PWD for fish culture by Fisheries department out of the total 78 reservoirs.

The potential of Inland Fisheries sector of the State is estimated at 4.50 lakh tons of fish production during normal rainfall which requires 70 crore fingerlings. The Government through various initiatives with funding support from National Agriculture Development Programme (NADP), National Fisheries Development Board (NFDB), Irrigated Agriculture Modernization and Water Bodies Restoration and Management (IAMWARM), Special Development Area (SADP), National Programme Bank for Agriculture and Rural Development (NABARD) etc., has upgraded the Government fish farm facilities and encouraged the private farmers to create fish seed production / rearing farms. Creation of an additional rearing area of 34.8 ha, both in Government and Private sector, yielded an all time high fish seed production of 64 crore during 2015-16. This has reduced the shortfall in fish seed requirement to 6 crore.

The failure of North East monsoon during 2016 resulted in scarcity of water in all water bodies which affected the inland fish production of the State. The inland fish production of the State has been reduced from 2.42 lakh tons in the year 2015-16 to 1.97 lakh tons during

2016-17. Further, the Government declared all districts in Tamil Nadu as drought hit districts.

## 4.3 Brackish water Fisheries

In Tamil Nadu, an estimated brackish water area of 56,000 ha is under capture fisheries and an area of 7,100 ha is under coastal aquaculture production, mainly shrimp aquaculture. In Tamil Nadu, shrimp farming has grown considerably and has emerged as a major commercial activity owing to the introduction of Pathogen Free (SPF) Shrimp, Specific Litopenaeus vannamei. So far, 1,739 shrimp farms (3,607.56 ha) and 51 shrimp hatcheries registered under the Coastal have been Aquaculture Act (CAA), 2005.

The details of District wise shrimp farms and hatcheries with CAA registration are given in Table.3

#### Table: 3

# District wise shrimp farms and hatcheries registered with CAA

S. No	District	Registration of Shrimp farm		Approved Shrimp farms for <i>L.</i> vannamei		Shrimp hatchery
		Nos.	WSA (in ha)	Nos.	WSA (in ha)	Nos.
1	Thiruvallur	52	159.36	7	67.38	-
2	Kancheepuram	74	96.18	12	27.84	18
3	Villupuram	25	44.68	-	-	28
4	Cuddalore	129	227.46	8	49.95	1
5	Nagapattinam	809	1,512.55	56	257.59	3
6	Tiruvarur	160	446.48	10	70.64	-
7	Thanjavur	300	615.32	18	129.61	-
8	Pudukottai	57	161.15	1	6.00	-
9	Ramanatha- puram	111	252.68	-	-	1
10	Thoothukudi	21	91.20	3	73.04	-
11	Kanniyakumari	1	0.5	-	-	-
	Total	1,739	3,607.56	115	688.05	51

\* WSA- Water Spread Area

## 5. ADMINISTRATIVE SET UP

The Commissioner/Director of Fisheries is the Head of the Department. The Commissioner / Director of Fisheries is also the Managing Director of Tamil Nadu Fisheries Development Corporation Limited, (TNFDC Ltd.,) a Public sector undertaking of the Tamil Nadu Government, the Functional Registrar of all Fishermen Cooperative Societies including Tamil Nadu State Apex Fisheries Co-operative Federation Ltd., (TAFCOFED) and also the Member Secretary of Tamil Nadu Fishermen Welfare Board (TNFWB).

The fisheries development and fisherman welfare schemes are being implemented through 47 Assistant Directors of Fisheries. To monitor supervise the implementation of various and welfare schemes, the State is divided into 10 Regions, out of which, 3 regions are headed by loint Director of Fisheries (Chennai, Nagapattinam and Thoothukudi) and 7 Regions are headed by Deputy Director of Fisheries (Cuddalore, Tiruchirappalli, Madurai, Bhavanisagar, Dharmapuri, Ramanathapuram and Kanniyakumari). Moreover, the Engineering wing of Fisheries Department is divided into 4

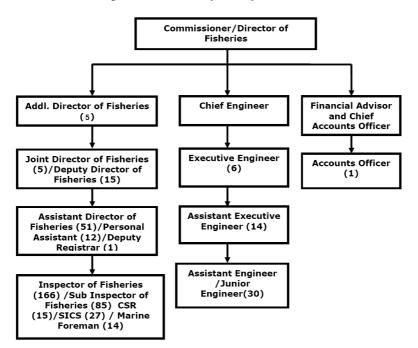
divisions (Chennai, Nagapattinam, Thoothukudi and Nagercoil) to monitor the Engineering works that are being carried out by 13 sub-divisions.

For monitoring the effective implementtation of various schemes in the Palk Bay districts, and to co-ordinate all Marine and Inland Fisheries works of six southern regions, one post of Additional Director of Fisheries was created at Ramanathapuram vide G.O.(D) No.123, Animal Husbandry, Dairying and Fisheries (FS2) Dept. dated:31.05.2017 and an officer from Indian Administrative Service has been posted.

The organizational setup of Fisheries Department is depicted below in figure 1.

#### Figure:1

#### **Organizational Setup of Department of Fisheries**



The total staff strength of Fisheries Department is 1,689 and the category wise details are given in Table.4.

SI.No	Name of the post.	No.of Posts
1.	Additional Director of Fisheries	05
2.	Joint Director of Fisheries	05
3.	Deputy Director of Fisheries	13
4.	Deputy Director (Engg.)	01
5.	Financial Advisor & Chief Accounts Officer	01
6.	Deputy Director (Personnel)	01
7.	Asst. Director of Fisheries	51
8.	Personal Assistant	12
9.	Deputy Registrar	01
10.	Accounts Officer	01
11.	Inspector of Fisheries	166
12.	Cooperative Sub-Registrar	15
13.	Marine foreman	14
14.	Sub-Inspector of Fisheries	85
15.	Senior Cooperative Inspector	27
16.	Others	1,191
	Total	1,589
Engine	eering Wing	
1.	Chief Engineer	01
2.	Executive Engineer	06
3.	Assistant Executive Engineer	14
4.	Assistant Engineer / Junior Engineer	30
5.	Senior Draughting Officer	01
6.	Draughting Officer	08
7.	Junior Draughting Officer	04
8.	Divisional Accountant	04
9.	Technical Assistant	23
10.	Others	09
	Total	100

Table:4 Category wise staff strength

The Department of Fisheries has filled up 144 posts at various levels during 2016-17. During this year 11 Assistant Directors of Fisheries and 10 Assistants were newly recruited by the Tamil Nadu Public Service Commission. In addition, filling of 151 vacancies in different cadres are under process through the TNPSC.

## 6. PROTECTION OF TRADITIONAL FISHING RIGHTS OF TAMIL NADU FISHERMEN.

## 6.1. Retrieval of Katchatheevu: Issues and Status

Retrieval of "Katchatheevu" back to India and restoration of the traditional fishing rights of Indian fishermen in the Palk Bay area, are the topmost on the agenda of the Government of Tamil Nadu.

A unanimous resolution was passed in the Tamil Nadu Legislative Assembly in 2011 to implead the Revenue department in the Writ Petition W.P. (Civil) No.561/2008, filed before the Supreme Court of India in 2008, by Hon'ble Thalaivi Amma, in her individual Puratchi capacity for retrieval of Katchatheevu. Consequently an 'Implead Petition' was filed by the Revenue department in the above writ petition and Government of Tamil Nadu impleaded itself in this case.

Further, the Government unanimously passed another resolution in the Tamil Nadu Legislative Assembly on 03.05.2013, urging the Government of India to retrieve Katchatheevu, questioning the legal validity of the 1974 and 1976 Indo-Sri Lankan Agreements, in the light of the judgment issued by the Hon'ble Supreme Court of India in 1960 in "Berubari" case that any agreement on the cession of Indian territory another country should be ratified to bv Parliament through an amendment of the Constitution. The Government unanimously

passed another resolution in the Tamil Nadu Legislative Assembly on 05.12.2014, urging the Government of India to retrieve Katchatheevu to restore the traditional fishing rights of the fishermen of Tamil Nadu.

The memoranda submitted by the Hon'ble Chief Minister to the Hon'ble Prime Minister on 03.06.2014, 07.08.2015 and 14.06.2016 have reiterated the need for abrogation of the 1974 agreements and and 1976 retrieval of Katchatheevu to permanently restore the traditional fishing rights of the Tamil Nadu fishermen

Due to the continuous efforts taken by the Government under the guidance of Hon'ble Puratchi Thalaivi Amma, the Government of India conveyed its no objection from the political angle for the participation of 100 fishermen devotees in the consecration ceremony of

St. Antony's Church at Katchatheevu held on 23.12.2016. Our fishermen devotees had participated in the event.

This Government reiterates its consistent stand that a permanent solution to this vexatious problem faced by our fishermen will be possible only by restoring India's sovereignty over Katchatheevu thereby restoring their rights to fish in their traditional waters.

## 6.2. Efforts taken by Government to prevent Harassment, Release of Tamil Nadu Fishermen and their fishing boats

The Government of Tamil Nadu accords top priority for the safety and security of our fishermen who eke out their livelihood by fishing in their traditional fishing waters. The Government of Tamil Nadu is determined to ensure that the traditional fishing rights of our fishermen which have been continuously enjoyed by them since time immemorial are well protected. The right of life, livelihood and the right to fish in the traditional waters of Palk Bay are continuously infringed upon by Sri Lankan Navy's recurrent unabated apprehension, attack and harassment of our innocent fishermen. With a deep sense of concern on the repeated attack. incidents of harassment and apprehension of Tamil Nadu fishermen by the Sri Lankan Navy and prolonged incarceration of our innocent fishermen in Sri Lankan jails, the Government of Hon'ble Puratchi Thalaivi Amma has written as many as 129 letters bringing the above incidents to the notice of the Hon'ble Prime Minister of India.

The Hon'ble Puratchi Thalaivi Amma has constantly demanded the Government of India to decisively use all available diplomatic channels to secure the immediate release of

apprehended fishermen of Tamil Nadu and also to prevent the recurrence of such incidents.

The Government unanimously passed a the Tamil Nadu Legislative resolution in Assembly on 05.12.2014 urging the Government of India to take immediate steps to release the 79 boats detained by Sri Lanka. Due to the untiring efforts of the Hon'ble Puratchi Thalaivi Amma, 80 boats which were in Sri Lankan custody since June 2014 were released. Out of 80 boats, 34 boats on 19.03.2015 in the first phase and 30 boats on 30.04.2015 in second phase have been brought back to Tamil Nadu. The remaining 16 boats could not be retrieved back to Tamil Nadu since they were damaged beyond salvage. A special relief assistance of Rs.5 lakh each totalling Rs.90 lakh was sanctioned to 18 fishermen whose boats got damaged beyond repair and salvage in Sri

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Lankan custody including the two boats sunken in Sri Lankan waters.

During 2017, 165 fishermen of Tamil Nadu were apprehended by Sri Lankan Navy, of which 123 fishermen were released and repatriated. Efforts are also being taken to release the 42 fishermen and 141 fishing boats detained by the Sri Lankan Government (upto 30.06.2017).

With the unrelenting and assiduous efforts of the Hon'ble Puratchi Thalaivi Amma since May 2011, 2,664 fishermen and their 357 fishing boats, have been released from the Sri Lankan custody and repatriated to Tamil Nadu as detailed below:

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Table :5Details of Fishermen and Boats released fromSri Lanka

Year	Fishermen released	Boats released
2011	222	40
2012	219	39
2013	645	119
2014	787	158
2015	378	1
2016	290	0
2017	123	0
Total	2,664	357

### 6.3 Indo-Sri Lankan Fishermen Level Talks

In view of the sentiments and desires of the Fishermen Associations of Tamil Nadu to have direct talks with their counterparts in Sri Lanka and in the interest of keeping a channel of communication open between the fishermen communities of both countries, the Hon'ble Chief Minister of Tamil Nadu had proposed to the Government of India that arrangements may be made to have talks between fishermen belonging to Tamil Nadu and their counterparts in Sri Lanka at Chennai. As proposed, the first round of talks was held at Chennai on 27.01.2014, the next round of talks was held at Colombo on 12.05.2014 and third round of talks held at Chennai on 24.3.2015.

The fourth round of fishermen level talks between the fishermen representatives of Tamil Nadu and Sri Lanka was facilitated by the Government of Tamil Nadu and convened at New Delhi on 02.11.2016. During the meeting the plight of the fishermen of Tamil Nadu was highlighted. The same issue was deliberated in detail during the Joint Working Group Meeting in New Delhi held on 31.12.2016 and 07.04.2017, and in the Ministerial meeting at Colombo, Sri Lanka on 02.01.2017.

The Government of Tamil Nadu is committed to continue the bilateral fishermen level talks.

#### 7. MARINE FISHERS - WELFARE SCHEMES

The Government guided by the principles of the Hon'ble Puratchi Thalaivi Amma always accords highest priority to improve the standard of living of fishers in the State by implementing several welfare schemes. In order to ensure the benefits of welfare schemes reach the beneficiaries in the shortest span of time and in transparent manner, the Government is а crediting the financial assistance being extended under various welfare schemes directly to the Savings bank account of individual beneficiaries through National Electronic Fund Transfer (NEFT). The details of various welfare Schemes are given below:

#### 7.1 Enhancing Financial assistance to Marine Fishermen Families during Fishing ban period from Rs.2,000/- to Rs.5,000/-

In order to conserve the marine fishery resources, seasonal fishing ban is imposed every year since 2001. The fishing ban period has been increased from 45 days to 61 days from 2017 (i.e. from April 15<sup>th</sup> to June 14<sup>th</sup> in the East Coast region and June 15<sup>th</sup> to August 14<sup>th</sup> in the West Coast region). The fishermen who are engaged as crew / labourers in the fishing boats have no other source of income during the ban period leading to much hardship in maintaining their families. This Government after assuming during 2011, enhanced office the relief assistance given to marine fishermen families from Rs. 1,000/- to Rs. 2,000/- to alleviate the sufferings of the poor fishermen crew/ labourers who are actually involved in marine fishing activities.

As promised in the Election manifesto and subsequent announcement made during Budget session 2016-17, the Government issued orders to enhance the existing fishing ban relief assistance of Rs.2,000/- to Rs.5,000/- to implement the scheme with enhanced assistance from 2017-18.

In continuation, the Government have sanctioned a sum of Rs.83.17 crore for implementing the scheme on enhanced rate of assistance. As on date (30.06.2017) a sum of Rs.65.28 crore was credited directly into the bank accounts of 1,30,568 fishermen families through National Electronic Fund Transfer (NEFT) in 13 coastal districts. The enhancement of fishing ban relief amount will cause an additional expenditure of Rs.49.65 crore every year to the Government.

#### 7.2 Enhancing the Special Allowance to Marine Fishermen Families during Lean Fishing Season from Rs.4,000/- to Rs.5,000/-

The Government introduced a new Scheme for providing Special Allowance of Rs.4,000/- to each of the marine fishermen families in coastal districts to mitigate their sufferings in the lean fishing months. This is being implemented since 2011.

As promised in the Election manifesto and subsequent announcement made during Budget session 2016-17, the Government issued orders to enhance the existing special allowances to marine fishermen families during lean fishing season from Rs.4,000/- to Rs.5,000/-

For the year 2016-17, the Government sanctioned an amount of Rs.82.50 crore towards disbursement of special allowance to marine fishermen families at the enhanced rate. So far,

Rs.77.70 crore has been credited directly into the bank accounts of 1,55,403 marine fishermen families of 13 coastal districts through National Electronic Fund Transfer (NEFT).

The enhancement of Special Allowance from Rs.4,000/- to Rs.5,000/- will incur an additional expenditure of Rs.16.50 crore every year to the Government.

This scheme will be continued for the year 2017-18 also.

# 7.3 National Savings-cum-Relief Scheme (NFSRS) for Marine Fishermen

This is a Centrally Sponsored scheme equally shared by both State and Central Government. The relief assistance is extended to the marine fishermen during lean fishing months every year.

Under this scheme, a sum of Rs.2,700/including Central and State share of Rs.1,800/-(Rs.900/- each) along with the fisherman's contribution is disbursed to the beneficiaries during the lean months.

For the year 2016-17, the Government sanctioned an amount of Rs.38.70 crore (Centre and State share) as its share. So far, Rs.37.96 crore has been credited directly into the bank accounts of 2,10,919 marine fishermen of 13 coastal districts through National Electronic Funds Transfer (NEFT).

In accordance with the announcement made during the Budget Speech 2017-18, the Government issued orders for the enhancement of relief under National Savings-cum-Relief Scheme for marine fishermen from Rs.2,700/- to Rs.4,500/- by suitably increasing the State contribution.

Consequent to the announcement, the Government have accorded administrative sanction for enrolment of fishermen beneficiaries under this scheme and also ordered to collect total subscription amount of Rs.1,500/- for the year 2017-18. Under this scheme, a fisherman contributes Rs.175/- per month for 8 months and Rs.100- for 9<sup>th</sup> month totalling Rs.1,500/- as his share. The Government provides a matching grant of Rs.3,000/- equally shared by the Central and State Governments (i.e. Rs.1,500/- each) and a total sum of Rs.4,500/- is disbursed to the beneficiaries during the lean months.

This scheme with enhanced relief assistance will be implemented from 2017-18.

#### 7.4 Savings-cum-Relief Scheme for Marine Fisherwomen

This Scheme is being implemented as a State Sector Plan Scheme for Marine Fisherwomen following the pattern of the scheme for marine fishermen.

For the year 2016-17, the Government sanctioned an amount of Rs.36.36 crore as its share. So far, Rs.35.81 crore has been credited

directly to the bank accounts of 1,98,944 marine fisherwomen of 13 coastal districts through National Electronic Funds Transfer (NEFT).

In accordance with the announcement made during the Budget Speech 2017-18, the Government issued order for the enhancement of relief under Tamil Nadu Saving-cum-Relief Scheme for fisherwomen from Rs.2,700/- to Rs.4,500/- by suitably increasing the State's contribution.

Consequent to the announcement, Government have accorded administrative sanction for enrolment of fisherwomen beneficiaries under this scheme. Under this scheme, a fisherwoman contributes Rs.175/- per month for 8 months and Rs.100- for 9<sup>th</sup> month totalling Rs.1,500/- as her share. The State Government provides a matching grant of Rs.3,000/- and a total sum of Rs.4,500/- is

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disbursed to the beneficiaries during the lean months.

This scheme with enhanced relief assistance will be implemented from 2017-18.

Further, the Government disbursed a total amount of Rs.182.10 crore under various Marine Fishers Welfare Schemes during 2016-17. The details are given in table:6

Table :6Financial assistance given under various MarineFishers welfare Schemes during 2016-17

SI. No	Schemes	Beneficia ries (Nos)	Amount disbursed ( Rs in crore)
1	Fishing ban period relief assistance to Marine Fishermen Families.	1,53,124	30.62
2	Special Allowance to Marine Fishermen Families during Lean Fishing Season.	1,55,403	77.70
3	National Fishermen Savings-cum-Relief Scheme.	2,10,919	37.97

SI. No	Schemes	Beneficia ries (Nos)	Amount disbursed ( Rs in crore)
4	Savings-cum-Relief Scheme for Marine Fisherwomen.	1,98,944	35.81
	Total		182.10

# 7.5 Group Accident Insurance Scheme for Fisherfolk

This is a Centrally Sponsored Scheme. Under this scheme, insurance premium is not collected from the fishermen. The Insurance premium is equally shared by both State and Central Government. In the event of accident death, missing and permanent disability relief assistance of Rs.2,00,000/- will be given. In the event of partial disability, relief assistance of Rs.1,00,000/- with a cover of Rs.10,000/towards hospitalization expenses will be paid.

A sum of Rs.67.77 lakh (as State's share) has been paid to FISHCOPFED (National Federation of Fishermen's Co-operatives Ltd), New Delhi, towards insurance premium covering 6,66,380 active marine and inland fishers and fishers enrolled in Tamil Nadu Fishermen Welfare Board (TNFWB) as fishers in allied activity for the period from 10.12.2016 to 09.12.2017. The details of insurance relief amount claimed by the beneficiaries from 2014-15 upto 30.06.2017 is given below.

#### Table :7

Fishermen Group Accident Insurance Scheme- Details of beneficiaries and Insurance claim

Year	Beneficiary	Relief amount Rs. in lakh
2014-15	119	113.00
2015-16	133	118.00
2016-17	178	305.00
2017-18 (till 30.06.2017)	09	16.00

This scheme will be continued during 2017-18.

#### 7.6 Motorisation of Traditional Crafts

The Government is providing subsidy assistance towards the purchase of Out Board Motors (OBM) / In Board Engines (IBE), to be fitted in the traditional crafts of fishermen. The fishermen will be provided with 50% subsidy of the unit cost of the engine or Rs.30,000/whichever is less which will be shared equally between Centre and State under the scheme.

Under the Blue Revolution scheme, the Government of India has enhanced the unit cost for motorization of traditional craft to Rs.1.20 lakh/ craft (including fishing gear and propeller) and 50% of the Unit cost with a ceiling of Rs.60,000/- per OBM/IBE as central financial assistance will be provided for purchase of OBM/IBE. Remaining 50% of the unit cost of the engine shall be borne by the beneficiaries.

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#### 7.7 Supply of Distress Alert Transmitters to the fishermen/ fishing vessels of the State with 90% subsidy assistance

The fishermen who venture into sea to eke out their livelihood are faced with dangerous situations risking their lives. It is further aggravated by the absence of means for communicating their distress at mid sea to the authorities concerned in the shore.

Taking this into consideration, this Government has introduced a scheme of supplying "Distress Alert Transmitter" (DAT) to the mechanized fishing boats and motorized country crafts of Tamil Nadu. This is a satellite based distress transmission device. This scheme was inaugurated by the Hon'ble Chief Minister on 27.02.2016.

Under this scheme, the Distress Alert Transmitters will be supplied to 30,000 boat owners – fishermen in a phased manner at a total cost of Rs.48 crore. Under Phase Idistribution of 1,600 units of Distress Alert Transmitters to mechanized fishing boat owners has been completed.

The scheme will be continued during 2017-18 also.

# 7.8 Issuance of Biometric Identity Cards to marine fishers

#### 7.8.1 Marine Fishermen

The Government of India introduced a Central Sector Scheme for "Issuance of Biometric Identity Cards to marine fishermen" to ensure coastal security in the aftermath of 26.11.2008 Mumbai terrorist attack. A sum of Rs.1.16 crore was allocated for this purpose to Tamil Nadu. It is proposed to issue Biometric ID cards to about 2.06 lakh active marine fishermen. The work was entrusted to "M/s.BEL Ltd" Bengaluru. Under this scheme, 1,86,512 Biometric ID cards have been distributed to the marine fishermen.

#### 7.8.2 Marine Fisherwomen

The Government has accorded sanction to issue biometric identity cards to marine fisherwomen as well. Under this scheme, 1,62,262 cards have been received from M/s. BEL Bengaluru and distributed to the marine fisherwomen.

Further, biometric features for the newly enrolled fishermen / fisherwomen and left over fishers if any will be captured and ID cards will be issued through Fishermen/Fisherwomen Co-operative Societies in each coastal district.

#### 7.9 Online Registration of Fishing Vessels

For ensuring coastal security, a scheme of "Online registration of fishing vessels" has been introduced and implemented at a cost of Rs.1.33 crore in Tamil Nadu. A total of 5,861 mechanised fishing boats, 30,239 motorised and 5,427 non-motorised traditional crafts have been registered online (upto 30.06.2017).

	30.06.2017					
SI. No.	Districts	Mechani sed Fishing Boat	Motoriz ed Fishing Boat	Non- motor ized	Total	
1	TIRUVALLUR	0	2,154	1	2,155	
2	CHENNAI	852	1,232	64	2,148	
3	KANCHEEPURAM	11	2,153	517	2,681	
4	VILLUPURAM	23	1,074	964	2,061	
5	CUDDALORE	303	2,421	1,910	4,634	
6	NAGAPATTINAM	1,173	4,399	136	5,708	
7	TIRUVARUR	1	174	0	175	
8	THANJAVUR	271	1,008	102	1,381	
9	PUDUKOTTAI	420	1,172	238	1,830	
10	RAMANATHAPURA M	1,724	3,485	1,026	6,235	
11	THOOTHUKUDI	293	4,378	38	4,709	
12	TIRUNELVELI	0	1,079	1	1,080	
13	KANNIYAKUMARI	790	5,510	430	6,730	
	TOTAL 5,861 30,239 5,427 41,527					

 Table: 8

 Fishing Vessels Registered in Tamil Nadu - As on

 30.06.2017

#### 7.10 Sales Tax Exemption on Sale of High Speed Diesel to Fishermen

The Government of Tamil Nadu provides 100% sales tax exempted High Speed Diesel for

mechanised fishing boats and motorised country crafts registered in the Fisheries Department. The mechanised boats can avail Sales Tax exempted diesel, subject to a maximum of 15,000 litres per boat per year (during 10 active fishing months) and motorised country crafts can avail a maximum of 3,600 litres per craft per year.

Considering the request of the fisherfolk and in accordance with the announcement made during the Budget Speech 2017-18, the Government enhanced the quantity of sales tax exempted diesel from 15,000 litres to 18,000 litres per mechanized fishing boat per year and from 3,600 litres to 4,000 litres per motorized country craft per year.

The District-wise/Craft-wise allotment of Sales Tax Exempted Diesel during the year 2016-17 is given below:

Table:9District wise allotment of Sales Tax Exempted Diesel during<br/>the year 2016-17

SI. No	District	Mechanis ed Fishing vessels (in KL)	Motorised Fishing Crafts (in KL)	Total Allotment (in KL)
1	Tiruvallur	0	7,056	7,056
2	Chennai	12,298	3,815	16,113
3	Kancheepuram	152	6,262	6,414
4	Cuddalore	3,022	4,032	7,054
5	Villupuram	213	3,532	3,745
6	Nagapattinam	11,454	5,270	16,724
7	Thanjavur	4,437	396	4,833
8	Pudukottai	8,177	1,496	9,673
9	Ramanathapuram (including Rameswaram)	23,809	4,511	28,320
10	Thoothukudi	3,938	9,536	13,474
11	Tirunelveli	0	0	0
12	Kanniyakumari	325	1,571	1,896
	Total	67,825	47,477	1,15,302

#### 7.11 Subsidised and Sales Tax Exempted Industrial Kerosene to the Traditional Crafts

The Government provides Sales tax exempted industrial kerosene at a subsidised rate of Rs.25/- per litre (200 litres per craft per month) upto 2011-12 to the fishermen of Thoothukudi, Tirunelveli and Kanniyakumari districts who own motorised traditional crafts fitted with kerosene driven motors. As per the orders of the Hon'ble Chief Minister of Tamil Nadu, the Government enhanced the limit of Sales Tax exempted and subsidised industrial kerosene from 200 litres to 250 litres per craft per month during 2012-13, so as to reduce the increasing operational expenses of traditional fishermen.

For the year 2016-17, the Government sanctioned an amount of Rs.16.09 crore for implementing the scheme to benefit 5,000 traditional crafts. Industrial kerosene is being supplied to country crafts driven by Kerosene of Thoothukudi and Tirunelveli districts through TAFCOFED and for Kanniyakumari district through TNFDC.

Considering the request of the fisherfolk and in accordance with the announcement made

during the Budget Speech 2017-18, the Government enhanced the quantity of sales tax exempted industrial kerosene supplied at the subsidized rate of Rs.25/- per litre from 3,000 litres to 3,400 litres per motorized country craft per year.

The Details of District wise allotment of Sales Tax Exempted Industrial Kerosene on subsidized rate during 2016-17 is given below:

Table:10District wise allotment of Sales Tax ExemptedIndustrial Kerosene on subsidized rate during2016-17

SI.No	District	Total allotment of Kerosene (in Kilo litres)
1	Thoothukudi	3,474
2	Tirunelveli	2,624
3	Kanniyakumari	7,767
	Total	13,865

# 7.12 Cash Awards to 10<sup>th</sup> and 12<sup>th</sup> Class Students of Fishing Community

To encourage the students of fishing community to pursue higher education, the Government of Tamil Nadu is providing cash award and merit certificates to the boys and girls of fishermen community who have secured top ranks in 10<sup>th</sup> and 12<sup>th</sup> standard examinations at District and State level since 2005-06.

Consequent to the announcement made during Budget Speech 2016-17 by the Hon'ble Minister for Fisheries, the existing cash award to the students has been enhanced as furnished in Table 11.

SI.	Catagoria	Enhancement of Cash Awards (in Rs.)			
No	Category	12 <sup>th</sup> std		10 <sup>th</sup> std	
		From	То	From	То
1	State level - 1 <sup>st</sup> mark	10,000/-	50,000/-	6,000/-	25,000/-
2	State level – 2 <sup>nd</sup> mark	Nil	30,000/-	Nil	20,000/-

Table: 11 Details of Cash Awards

3	State level – 3 <sup>rd</sup> mark	Nil	20,000/-	Nil	15,000/-
4	District level – 1 <sup>st</sup> mark	6,000/-	6,000/-	2,000/-	3,000/-
5	District level – 2 <sup>nd</sup> mark	Nil	4,000/-	1,000/-	2,000/-
6	District level – 3 <sup>rd</sup> mark	Nil	2,000/-	600/-	1,000/-

The Government has sanctioned a sum of Rs.15.72 lakh for disbursement of cash award to students at enhanced rate from the year 2016-17. Due to the enhancement of cash awards the Government will incur an additional expenditure to the tune of Rs.8.26 lakh every year.

#### 7.13 Reconstruction of Fishermen Tenements at Thiruchinankuppam

An amount of Rs.24.60 crore has been sanctioned by the Government towards reconstruction of 492 tenements at Thiruchinankuppam in Thiruvallur District through Tamil Nadu Slum Clearance Board. Presently, the 492 tenements have been

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dismantled and construction work is under progress by the Tamil Nadu Slum Clearance Board.

#### **MARINE FISHERS - RELIEF SCHEMES**

#### 7.14 Daily Relief to Marine Fishermen apprehended in other countries

The Government supports the families of fishermen who are apprehended by the neighbouring countries while fishing by providing allowance of Rs.50/-. The present dailv Government after taking charge during 2011-12, enhanced the daily allowance to Rs.250/- to the family of the apprehended fisherman. The scheme is being implemented through the District Collectors for providing immediate relief. For the year 2016-17, a sum of Rs.27.42 lakh has been released as relief to the 317 fishermen families.

This Scheme will be continued during 2017-18 as well.

# 7.15 Daily Relief to the Families of Missing Fishermen

During 2011-12, this Government after assuming charge, enhanced the daily allowance from Rs.50/- (i.e. Rs.1,500/- per month) to Rs.250/-(i.e. Rs.7,500/- per month) to the families of fishermen who went missing while fishing at sea. For the year 2016-17, a sum of Rs.17.33 lakh has been released as relief to the 25 fishermen families.

This Scheme will be continued during 2017-18 as well.

# 7.16 Relief to the families of deceased / injured fishermen due to shooting by Sri Lankan Navy and others

The fishermen of coastal districts, who fish in their traditional waters of the Palk Bay are apprehended / harassed and sometimes even shot at by the Sri Lankan Navy.

The Government is providing an ex-gratia payment of Rs.3 lakh from the Chief Minister's Public Relief Fund to help the family of fishermen who die as a result of such an eventuality. In the case of the deceased fisherman being the sole breadwinner of the family, an Ex-gratia amount of Rs.5 lakh is provided. If the fisherman sustains major and minor injuries, an ex-gratia amount of Rs.50,000/- and Rs.20,000/respectively is provided.

The Sri Lankan Navy opened indiscriminate firing on the fishermen on board of a mechanised fishing boat of Rameswaram in Ramanathapuram district on 06.03.2017. Due to shooting by the Sri Lankan Navy, one fisherman died and another fisherman sustained injuries. The Hon'ble Chief Minister of Tamil Nadu has ordered to release an ex-gratia

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amount of Rs.5 lakh to the fisherman shot dead and to release an enhanced ex-gratia amount Rs.1,00,000/- as a special case to the injured fisherman from the Chief Minister's Public Relief Fund and disbursed.

# 7.17 Corpus Fund for extending financial assistance for pursuing higher education to the Children of Missing / Deceased Fishermen due to Shooting during fishing

The financial relief assistance provided to the families of the missing fishermen / deceased fishermen who died of shooting by Sri Lankan Navy is insufficient for meeting their day-to-day expenses and in most of the cases, the families experience much hardship for providing/ continuing their son /daughter's education as they are financially not sound. The children of the deceased / missing fishermen therefore, are forced to discontinue their education and seek employment to maintain their families. Considering the above plight, a Corpus fund of Rs.25 lakh has been created in Tamil Nadu Fishermen Welfare Board to meet the full expenses of the higher studies of the children of the families of missing / deceased fishermen due to shooting incidents.

The Scheme will be continued during 2017-18.

# 7.18 'VARDAH' Cyclone Relief Assistance

"Tropical cyclone Vardah" made its landfall 10 km north of Chennai on 12.12.2016 and caused extensive damages to the fishing crafts and implements along the coast of Thiruvallur, Chennai and Kancheepuram Districts. The Government has sanctioned Rs.19.13 crore towards relief assistance to the affected 16,768 fishermen of Thiruvallur (9,916), Chennai (3,172) and Kancheepuram(3,680) districts from the State Disaster Response Fund (SDRF) for carrying out immediate relief and restoration measures.

Further, two boats were capsized off Chennai coast due to 'Vardah' cyclone. The Hon'ble Chief Minister of Tamil Nadu disbursed the cheque for Rs.1,00,000/- each from the Hon'ble Chief Minster's Public Relief Fund to the affected ten fishermen families on 06.03.2017

# 7.19 Relief Assistance to Fishermen Affected due to Oil Spill in the Coastal Areas of Thiruvallur, Chennai and Kancheepuram Districts

Two Merchant ships met with a collision off Kamarajar Port, Ennore on 28.01.2017. Due to this accident, the oil spilled out from ships and spread along the coast of Thiruvallur, Chennai and Kancheepuram districts. The fishermen of these three districts were subjected to hardship due to loss of their livelihood. Further, the non-acceptance and reduction in the price of fishes caught by the fishermen affected the fishers and those engaged in the fishing allied sector.

The Hon'ble Chief Minister of Tamil Nadu met the Hon'ble Minister for Shipping in person at New Delhi on 28.02.2017 and requested to release the relief immediately to redress the plight of fishermen affected due to oil spill. Considering the plight of the affected fishermen of Thiruvallur, Chennai and Kancheepuram districts, the Government has sanctioned an interim relief assistance of Rs.15 crore to 30,000 fishermen families (@ Rs. 5,000/- per family). The Hon'ble Chief Minister of Tamil Nadu disbursed the interim relief assistance to the beneficiaries on 06.03.2017.

Further, the Government has sanctioned an amount of Rs.75 lakh for construction of 2 fish markets in Chennai and Thiruvallur districts from the Corporate Social Responsibility (CSR) fund of oil polluter companies.

# **RESOURCE/PRODUCTION ENHANCEMENT**

# 7.20 Conservation and Management of Fishery Resources

Imposing seasonal fishing ban, stock enhancement, sea ranching programme, habitat development like installation of artificial reefs and diversified fishing methods are some of the conservation/ stock enhancement measures, being adopted by the Fisheries Department.

# 7.21 Providing 50% Subsidy for Fishermen to procure New Tuna Longliner cum Gill Netter

In order to safeguard the coastal fishery resources for sustainable fisheries and to support the fishers to harvest the unexploited/ underexploited oceanic fishery resources like Tuna and Tuna like fishes, the Hon'ble Chief Minister of Tamil Nadu announced a pioneering scheme of 'Providing 50% subsidy for fishermen to procure New Tuna Long liner cum Gill Netter' boats for the first time in the Country. Under this scheme 50% of the estimated unit cost of Rs.60 lakh upto a maximum of Rs.30 lakh/unit is provided as subsidy for construction of new Tuna Long liner cum-Gill Netter boat.

Under this scheme, work orders have been issued for construction of 171 Tuna long liner boats. An amount of Rs.7.93 crore has been released as subsidy to 45 boats for different stages of construction.

# 7.22 Subsidy Assistance for Diversification of Trawl fishing in Palk Bay districts to Deep Sea Fishing

Fishing by bottom trawlers in the Palk Bay has been receiving high level of attention as Tamil Nadu fishermen are often arrested while fishing in their traditional waters by Sri Lankan Navy. The prolonged incarceration of our fishermen and impounding of their fishing boats by the Sri Lankan Government causing a sense of anxiety and insecurity among the fishermen community of Tamil Nadu.

As a way forward, the Government issued orders to diversify trawlers from Palk Bay into deep sea fishing Tuna long liner cum Gill netter boats in a phased manner over a period of three with funding assistance from the vears Government of India and Government of Tamil Nadu. The scheme will be implemented exclusively in the Districts of Tamil Nadu covering the Palk Bay area. The estimated unit cost of the new tuna longliner cum gill netter for deep sea fishing is Rs 80 lakh / boat. The scheme will be implemented with 70% subsidy assistance subject to a maximum of Rs.56 lakh per boat, 20% Institutional finance and 10% beneficiary contribution.

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During the year 2017-18, subsidy assistance will be provided for the construction of 500 Tuna long liner cum gill net boats towards diversifying trawl fishing boats into deep sea fishing at an estimated cost of Rs.286 crore (Government of India – Rs.200 crore and State Government – Rs.86 crore).

# 7.23 Deep Sea Fishing – Stationing of Mother Ship Concept

The Government made an announcement to establish "Mid Sea Fish Processing Unitscum-Carrier Mother Vessel" with the facilities like Refrigerated Sea Water (RSW) system and refrigerated fish storage facility to store the fishes onboard. The mother vessel will act as a source of essential inputs for the 'baby vessels' involved in fishing in the deep sea and it will also provide the service to transport the catch to the shore immediately. This will greatly reduce the operating cost of the fishing vessels towards frequent visits to the shore and the fish will be stored in good condition on par with export quality aiding the fishermen to get good price for their catch.

'M/s Mahindra Consulting Engineers Ltd', Chennai was appointed as Consultant for this project. The Consultant submitted the concept and feasibility report after several studies, based on which it was decided to implement this project on a pilot basis in Kanniyakumari or Chennai district. Tenders were called twice under International Competitive Bidding and once at National level. As no tenders were received, tender conditions of this project are under revision for inviting re-tender.

### 7.24 Setting up of Artificial Reefs

Artificial reefs act as habitats to marine aquatic organisms, help in enhancing the fish production through increased breeding activity and survival of young ones. It also acts as a

barrier for bottom trawling operations. The Government has taken steps for development of fish habitats, by setting up of artificial reefs in the inshore waters as a conservation / stock enhancement measure. So far, 37 artificial reefs have been setup along the Tamil Nadu coast.

This scheme will be continued during 2017-18 also.

# 7.25 Subsidy assistance to fishing crafts in the West coast to take up squid jigging

The Indian Squid is available throughout the coast and is abundant in the west coast of Kanniyakumari district. To take up diversified fishing, this Government has introduced a scheme of extending financial assistance to fishermen for procurement of squid jigging materials with 50% subsidy assistance during the year 2012-13. For the year 2016-17, subsidy assistance of Rs.25 lakh was released to 100 fishermen of Kanniyakumari district for procurement of squid jigging materials under National Agriculture Development Programme (NADP).

This Scheme will be continued during 2017-18 also.

# DEVELOPMENT OF INFRASTRUCTURAL FACILITIES

7.26 Centrally Sponsored Shared Scheme

# 7.26.1 Fishing Harbour at Colachel (sharing cost on 50:50 basis between Centre and State)

The Government accorded revised administrative approval for construction of Fishing Harbour at Colachel in Kanniyakumari district at a cost of Rs.87.75 crore under Centrally Sponsored Scheme (50:50). Further, the State Government has accorded second revised administrative approval for Rs. 96.72 crore and the additional funds of Rs. 8.97 crore met by the State Government. So far, a total sum of Rs.77.42 crore has been released. (Central Government has released a sum of Rs.24.57crore and the State Government has released its total share of Rs.52.85 crore). This newly constructed Fishing Harbour facilitates safe berthing of 250 mechanized fishing vessels and 100 traditional boats. The Honourable Chief Minister of Tamil Nadu inaugurated the Colachal Fishing Harbour on 21.09.2016.

## 7.26.2 Fishing Harbour at Thengapattinam (sharing cost on 50:50 basis between Centre and State)

The Government accorded revised administrative approval for construction of Fishing Harbour at Thengapattinam in Kanniyakumari district at a cost of Rs.97.40 crore under Centrally Sponsored Scheme (50:50). A total sum of Rs.91.70 crore has been released so far (Central Government share of Rs.43 crore and the State Government share of Rs.48.70 crore). In this Fishing Harbour, landside works are in progress for berthing of 750 mechanised fishing vessels, 300 FRP boats and 400 country boats.

In line with the recommendation of the 13<sup>th</sup> Finance Commission for coastal shore protection, an amount of Rs.82.73 crore has been allocated as a mitigation measure towards protecting the shore of eastern coastal villages of Thengapattinam fishing harbour. The entire shore protection works have been completed.

# 7.26.3 Fishing Harbour at Poompuhar (sharing on 75:25 & 50:50 basis between Centre and State)

The Government accorded administrative approval for the construction of Fishing Harbour at Poompuhar in Nagapattinam district at a cost of Rs.78.50 crore with Centre and State contribution on 75:25 basis. Subsequently the revised administrative approval was accorded for Rs.148 crore with Centre and State contributions on 75:25 basis upto for Rs.78.50 crore and 50:50 basis for the balance of Rs.69.50 crore. So far, a total sum of Rs.85.80 crore has been released for this project including Central Government share of Rs.31.42 crore and the State Government share of Rs.54.38 crore.

In accordance to the revised design, the construction of Southern Main Breakwater upto 880m and Northern Leeward Breakwater upto 390m and wharf works are in progress. Landside facilities are to be commenced.

# 7.26.4 Expansion of Fishing Harbour at Chinnamuttom (sharing on 75:25 basis between Centre and State)

The Government accorded administrative approval for expansion of the Fishing Harbour at

Chinnamuttom in Kanniyakumari district at a of Rs.73.52 crore Centrally cost under Sponsored shared (75:25 pattern) scheme. Further, the State Government has accorded revised administrative approval for Rs. 81.22 crore and the additional expenditure of Rs.7.70 crore met by the State Government. So far, a total sum of Rs.63.17 crore has been released for this project, including Central Government share of Rs.37.09 crore and the State share of Rs.26.08 Government crore. The Honourable Chief Minister of Tamil Nadu inaugurated the Fishing Harbour on 21.09.2016.

# 7.26.5 Reconstruction of Fishing Harbour at Mookaiyur, Ramanathapuram District (sharing on 50:50 basis between Centre and State)

As a sequel to the efforts of Hon'ble Chief Minister of Tamil Nadu to implement the reconstruction of Fishing Harbour at Mookaiyur with a view to decongest the Palk Bay region of Ramanathapuram and to support the livelihood of fishermen at Mookaiyur and nearby villages with infrastructure facilities such as breakwater, wharf, fish auction hall, protection wall, drying platform and net mending centre and other infrastructure facilities with the participation of Centre and State Governments.

The Government of India accorded the administrative approval for Rs.113.90 crore with sharing on 50:50 basis between Centre and State and both the Governments have released a sum of Rs.5 crore each as 1<sup>st</sup> installment (total Rs.10 crore). Tender has been finalized and works have been commenced.

# 7.27 Construction of Fishing Harbour at Manakudy in Kanniyakumari District under Public – Private Partnership (PPP) mode

In principle sanction has been accorded by this Government for the construction of a fishing harbour at Manakudy in Kanniyakumari district on Public Private Partnership (PPP) under Design, Build, Finance, Operate and Transfer (DBFOT) basis.

The Tamil Nadu Infrastructure Development Board approved the Project of Construction of Fishing Harbour at Manakudy at an estimated cost of Rs.72.44 crore. Request for Proposal (RFP) bid for the construction of Fishing Harbour at Manakudy was scrutinized, Letter of Award (LOA) issued to the qualified and concessionaire agreement executed.

# 7.28 Dredging of Fishing Harbours, Fish Landing Centres and Bar mouths

The Hon'ble Chief Minister under Rule 110, announced that the bar mouths at 6 places in Nadu will be dredged for smooth Tamil navigation of fishing vessels. In accordance with the announcement made, the Government accorded administrative sanction for Rs.17.80 crore towards dredging of fishing harbour basins at Nagapattinam and Pazhayar, fish landing centre basins at Thirumullaivasal and Nagoor and bar mouth of Vettar river in Nagapattinam district and fishing harbour basin at Cuddalore and bar mouth of Vellar River in Cuddalore district. Tenders have been finalized for all the above works and works commenced.

#### 7.29 NABARD Schemes

# 7.29.1 RIDF XXII (2016-17)

The Hon'ble Chief Minister under 110 Rule announced that the development of Fish Landing Centres at Pulicat in Thiruvallur district, in Jambavanodai Thiruvarur district. Karaiyurtheru and Eripurakkarai in Thanjavur district, Kombuthurai in Thoothukudi district Morepanai in Ramanathapuram district, Chinnathurai and Eraviputhenthurai in Kanniyakumari district and Improvement to Fish Seed Farm at Bhavanisagar in Erode district, Thirumangalakottai Agarapettai and in Thanjavur district, Nallikottai in Thiruvarur district, Manjalar dam in Theni district and Manimuthar in Tirunelveli district at a cost of Rs.33.42 crore.

The Government accorded administrative sanction for Rs.33.42 crore for the development of 7 Fish Landing Centres and improvement to 6 fish seed farms with the financial assistance from NABARD under RIDF XXII. Tenders have been finalized and all works have been commenced

### 7.29.2 RIDF XXIII (2017-18)

The coastal villages bear the brunt of sea erosion. The National Institute of Ocean Technology (NIOT), Ministry of Earth Science has designed an environmental friendly solution of submerged dykes made up of sand filled geo-synthetic tubes for coastal protection and a pilot Project is being undertaken in Kadalore -Periyakuppam village of Kancheepuram district. This technique will protect the coast from wave action and help to increase the fisheries potential.

In accordance with the announcement made during the Budget Speech 2017-18, strategy will be adopted for coastal protection works in critical locations affected by sea erosion at a cost of Rs. 20 crore with NABARD funding assistance during 2017-18.

Preparation of Detailed Project Report by National Institute of Ocean Technology (NIOT) is in progress.

# 7.30 The World Bank Assisted Coastal Disaster Risk Reduction Project (CDRRP)

Fisheries sector and the fishing community are the most vulnerable to natural calamities, climate change and degradation of marine environment. In order to promote sustainable marine fisheries and for securing livelihood of the fishing community, the World Bank has sanctioned "Coastal Disaster Risk Reduction Project (CDRRP) at an estimated cost of Rs.321.30 crore given in the Table 12.

#### Table:12

#### **Details of Fund allocation under CDRRP Scheme**

I.	Fisheries Infrastructures	Amount (Rs. in Crore)
a)	Ongoing ETRP works	132.30
b)	New Works (2 projects)	78.00
c)	Studies for New Projects	10.00
	Sub Total	220.30

II.	FIMSUL	38.86
III.	Providing Wireless	62.14
	<b>Communication facilities</b>	
	Total	321.30

# 7.30.1 Fishery Infrastructure (Rs.220.30 crore)

In order to complete the spillover works taken up under Emergency Tsunami Rehabilitation Project, this fund has been sanctioned. The details of sanctioned works are tabulated below.

Table:13

Details of works sanctioned under Emergency Tsunami Rehabilitation Project

SI.No.	Name of work	AS Amount (Rs. in crore)	Major Infrastructure works completed
I) Expansion of Fishing Harbours at			
1.	Nagapattinam	45.21	All works were completed and it was inaugurated by the Honourable Chief Minister on 21.09.2016
2.	Pazhayar	32.22	All works were completed and put in to use.

II) Stabilization of Bar Mouth at					
1.	Uppanar	8.03	All works were completed and put in to use.		
2.	Vellar	14.45	All works were completed and put in to use.		
III) C	onstruction of F	ish Landing C	Centres at		
1.	Nagore	12.99	All works were completed and it was inaugurated by the Honourable Chief Minister on 15.07.2015.		
2.	Parangipettai- Annankoil	18.91	All works were completed and it was inaugurated by the Honourable Chief Minister on 27.06.2014.		
IV) Co	nstruction of Tu	be Ice Plant	at		
1.	Chinnamuttom	0.50	All works were completed and put in to use.		
New W	New Works under CDRRP				
V)	Mallipattinam Fishing Harbour in Thanjavur District	60.00	The main components are L-Jetty, diaphragm wall, net mending shed, auction hall and dredging. The World Bank approved the project and the tenders finalised and work order issued.		

VI)	Stabilisation of Barmouth at Punnakayal in Thoothukudi District	18.00	The main components are dredging, berthing structure, approach roads and other buildings. The World Bank approved the project, tenders have been finalised, agency fixed and the Honourable Chief Minister laid the foundation stone on 21.09.2016 and the works are in progress.
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# 7.30.2 Fisheries Management for Sustainable Livelihood-II (FIMSUL-II) project (Rs.101 crore)

The marine fishermen are the most vulnerable sections with respect to natural calamities, which directly affects their livelihood and at times endanger their lives.

Under the World Bank funded CDRRP -Fisheries Management for Sustainable Livelihood– II (FIMSUL-II) project, the following sub - components were sanctioned:-

- A. Marine Fisheries Co-Management (Rs.23.03 crore)
- B. Improved Capacities & KnowledgeManagement (Rs.5 crore)
- C. Fisheries Livelihood Support (Rs.6.85 crore)
- D. Management Support (Rs.3.98 crore)
- E. Providing wireless communication network facilities to ensure sea safety (Rs.62.14 crore)

# (A) Marine Fisheries Co-Management (Rs.23.03 crore)

The following activities are to be undertaken under this sub - component.

In order to ensure equitable distribution of the fisheries resources among the stakeholder groups and for better management of marine fisheries resource, Co-management Committees have been formed involving the fishers at Village level, District level and Regional level in the 13 Coastal districts. The State Level Co-management Committee will be formed.

- A State Level Technical Committee consisting of experts from Central Fisheries Institutes and Tamil Nadu Fisheries University has been formed for providing technical guidance to the fisheries management units and livelihood programmes.
- ➤ The Department Fisheries has formed the Asset Management Committees in all fishing harbour/fish landing centres involving local fishermen stakeholders and provided training

on hygienic maintenance of fishing landing harbour / fish centre premises. These committees are revenue for generating better management of fishing harbour/fish landing centres and thereby promoting hygiene and ensuring the quality of fresh fish.

The "Fisheries Information and Service Centres" (FISC) have been established in 6 places viz. Chennai, Cuddalore, Nagapattinam, Ramanathapuram, Thoothukudi and Kanniyakumari at an estimated cost of Rs. 1.20 and crore are functioning. The FISC would be a single window information centre responsible for data collection on landings, resources, dissemination of information about the Potential

Fishing Zone, various Government welfare schemes, weather warning and distress monitoring / reporting.

> In order to ensure safety and security of the fishermen while fishing at sea, it was decided to provide with 2 life buoys each at free of cost for all the motorized traditional fishing crafts of the coastal districts. In the first phase, (2015-16), a total of 11,500 Life buoys were distributed to traditional of fishermen Nagapattinam, Pudukkottai, and Tiruvarur, Ramanathapuram districts at a cost of Rs.1.62 crore. In the second phase (2016-17) 38,000 Life buoys were provided free of cost to the traditional boats in the remaining

coastal districts at a cost of Rs. 5.36 crore.

- To ensure inputs for enabling the co-management council to take appropriate decisions on fisheries co-management strategies and help the Government in policy making, marine fisheries landing data are being collected by the data collection assistants engaged under this project. An amount of Rs.51.84 lakh has been earmarked for this purpose.
- Memorandum of Understanding (MoU) has been signed with Central Marine Fisheries Research Institute (CMFRI), Kochi for Estimation of Marine fish landings in Tamil Nadu with enhanced sampling coverage for

which an amount of Rs.66.50 lakh has been released as 1<sup>st</sup> instalment. Training has been imparted to the field level Fisheries staff and the data collection assistants in species identification of fishes, data collection, compilation and report preparation by CMFRI.

- For better management of marine fisheries, specific studies have been taken up at a cost of Rs.10 lakh to arrive at appropriate decisions for the benefit of marine fisher folk.
- The Government has sanctioned Rs.75 Lakh for imparting trainings to fishermen. The trainings were imparted on various fields of fisheries, such as operation and hygienic maintenance of Fishing

Harbour/ Fish Landing Centre, hygienic handling of fishes, sea safety, open sea cage farming, seaweed culture, Co-operative administration, management, entrepreneurship and skill improvement, first responder response training, etc.,

> The World Bank has sanctioned Rs.2.89 crore for reimbursement of operational and maintenance expenditure of fishing harbour/fish landing centres upto 75% of total expenditure during the first year and 60% during the second year to the respective fishing harbour/fish landing centre management committees in order to encourage better management of the fishing harbour/fish landing centres by the stakeholders and is under implementation.

In order to motorize the small fishing crafts, action has been taken to provide less than 8 HP outboard engines at 50% subsidy subject to maximum of Rs.30,000/-. Supply of OBM is in progress.

# (B) Improved Capacities and Knowledge Management (Rs.5 crore)

In order to provide exposure and training to the fisheries field officials on the various developments in livelihood programmes and fisheries co-management, two groups of department officials were deputed to undertake overseas training programme in Vietnam (15 officials) and Australia (4 officials). Further, the Directorate of Fisheries would be equipped with a new Central library, for which tender was called through PWD and civil works are in progress.

# (C) Fisheries Livelihood support (Rs.6.85 crore)

This component provides livelihood enhancement and diversification both in fisheries and non-fisheries activities for the benefit of stakeholders. The stakeholders are aiven training on specific livelihood programmes such as training fishermen beneficiaries on cage culture, sea weed culture, preparation of value added fisherv products, entrepreneurship training in marketing etc., Marine cage culture activity has been taken up by the fishers in 10 places along the Tamil Nadu coast with 100% subsidv assistance, during 2015-16. Subsequently during 2016-17, in the second phase, 35 cages have been fabricated and cage farming activity is in progress.

To support the livelihood of fisher widows coastal districts of Tamil Nadu, in the 12 modern fish kiosk were established at a total cost of Rs. 56.40 lakh in Kancheepuram, Villupuram, Cuddalore, Nagapattinam, Thanjavur, Pudukottai, Ramanathapuram, Thoothukudi, Tirunelveli and Kanniyakumari districts and handed over to them and are in progress.

The Palk Bay fisherwomen of Mandapam and Rameswaram in Ramanathapuram district have been provided with seaweed rafts with prior training at Central Salt & Marine Chemicals Research Institute, Mandapam for undertaking seaweed culture. Seaweed culture in 1,500 seaweed rafts have been undertaken by 50 fisherwomen groups totallv and 200 fisherwomen beneficiaries are benefitted. During 2017-18, fisherwomen 50 groups (40 fisherwomen groups in Ramanathapuram

district and 10 fisherwomen groups in Pudukottai district) have been provided training and culture is in progress.

Under the New Announcement, the Hon'ble Minister for Fisheries had announced on the floor of Assembly during 2016-17 that 25 numbers of Transport vehicles will be provided to the best functioning Fishing Harbour / Fish Landing Management Committees to transport fish and related items such as ice, salt etc., at an estimated cost of Rs.1.5 crore. Accordingly 25 transport vehicles were procured under FIMSUL project at a cost of Rs.1.38 crore and given to Fishing Harbour / Fish Landing centre Management Committees.

# (D) Management Support (Rs.3.98 crore)

Under this component, the Government has accorded administrative sanction for Rs.3.98 crore for establishing an exclusive Project Implementation Unit (PIU) for co-ordinating the implementation of project activities.

# (E) Providing Wireless Communication facilities to ensure Sea safety (Rs.62.14 crore)

To ensure the safety and security of the fishermen at sea, to disseminate information about weather warnings and availability of fishery resources, the World Bank has sanctioned the scheme to provide Wireless communication equipment (VHF Sets) to all registered fishing crafts operating in Tamil Nadu at a cost of Rs.62.14 crore.

Under this component, wireless communication network facility is being established by construction of new VHF towers at 7 places and taking on lease of already existing BSNL towers in 8 places. Control rooms are also being constructed to manage the communication system. For procurement of VHF sets, tenders have been finalized and supply order issued. Supply will be completed before September, 2017.

# 7.31 Construction of Fish Landing Centres under Tsunami Rehabilitation Programme (TRP)

The Government has sanctioned a total amount of Rs.49.97 crore for the construction of ten new fish landing centres (FLC) at various coastal villages. Among them, construction of all Fish Landing Centres except at Annamalaichery and Periyamangodu in Tiruvallur district has been completed and put into use. National Board for Wild Life has given clearance for both Annamalaichery the projects of and Periyamangodu. These works will be taken up on getting approval from Wild Life Warden for Forest Department clearance.

# 7.32 Other Schemes

# 7.32.1 Permanent stability of barmouth with Training wall at Pulicat Lake in Thiruvallur District

The Government has accorded administrative approval and financial sanction for Rs.40 lakh for the preparation of Techno – Economic Feasibility Report and conduct of model studies for the permanent stability of bar mouth with Groynes at Pulicat lake in Tiruvallur district. The Indian Institute of Technology (IIT), Madras has prepared the Detailed Project Report.

The consultant for preparation Environment Impact Assessment(EIA) report has been appointed.

# 7.32.2 Studies for construction of Fishing Harbours at Ennore and Vellapallam and renovation of Cuddalore Old Town Fishing Harbour. (Rs.4 crore)

Consultants have been appointed for preparation of Detailed Project Report for Tuna Fishing Harbour at Ennore in Tiruvallur district, Fishing Harbour at Vellapallam in Nagapattinam district and Renovation of existing Fishing Harbour at Old Town in Cuddalore district and Draft Detailed Project Reports have been received. Studies have been completed for these projects and the process of obtaining CRZ clearance is under way.

# 7.33 Koodankulam Nuclear Power Project Neighbourhood Development Programme

Koodankulam Nuclear Power Project Neighbourhood Development Programme earmarked Rs.500 crore for the overall development of neighbourhood villages of Koodankulam Nuclear Power Plant, the Government has allocated Rs.92 crore for marine infrastructure development for the benefit of fishermen. The project details are given below.

- Construction of Cold storage and Modern
   Fish market at Uvari (Rs.5 crore) is in progress.
- Construction of Fish Landing Facilities at Uvari village at a cost of Rs.66.70 crore is in progress.
- Construction of Groynes at Koothankuzhi and Perumanal at a total estimated cost of Rs. 20 crore (Rs.10 crore each) have been completed.
- Construction of net mending shed at Koottapanai at an estimated cost of Rs.30 lakh has been completed.

## 7.34 Establishment of Fish Processing Parks in Tamil Nadu

The Government announced to establish fish processing parks in 13 coastal towns of Tamil Nadu. Subsequently, suitable sites were Cuddalore, identified in Nagapattinam, Ramanathapuram and Kanniyakumari districts for this purpose. Tender was floated for providing land on long term lease basis to the prospective developers for establishment of fish processing parks in these districts. The land allotment orders has been issued to the selected developer for establishing fish processing park in Kanniyakumari district, in which works are in progress. Government has issued orders to call for retender for allocation of land in Cuddalore, Nagapattinam and Ramanathapuram districts and hence tenders to be called shortly.

For establishment of Fish processing park in Thiruvallur and Thoothukudi districts, land allotment orders have been issued to the prospective developers by State Industries Promotion Corporation of Tamil Nadu (SIPCOT), for which obtaining mandatory clearances from various departments are in progress.

### 7.35 Setting up of a World class Oceanarium at Mamallapuram

order to establish a World In class Oceanarium at a cost of Rs.258 crore under Public Private Partnership (PPP) mode at near Chennai, Tamil Nadu Mamallapuram Tourism Development Corporation's (TTDC) land to an extent of 13.07 acres was identified. After several studies by M/s Darashaw Private Limited, Mumbai, who was appointed as consultant to conduct Techno Commercial Study and Transaction Advisory Feasibility Services, detailed concept and related entertainment facilities were finalized. Although global tenders were called twice, bidders did not

qualify in the bidding process. Therefore, based on the views of the prospective bidders, the revision in the Request for Qualification (RFQ) document was made and third re-tender called for and last date for submission of tender is fixed on 31.07.2017.

# 7.36 Establishment of Aquarium cum Aquatic Virtual Reality Centre at Eco Park, Chetpet, Chennai

The Sports Fishing-cum-Eco Park at Chetpet lake, Chennai was inaugurated by the Hon'ble Chief Minister of Tamil Nadu on 27.02.2016. The facilities viz., boating jetty, angling spots, Multi Level Car Parking (MLCP), park, recreation centre, food court, walking and jogging tracks, children play area, sewage treatment plant, etc., have been created in this Eco-park at a cost of Rs.42 crore.

This land mark facility in the heart of the city has received overwhelming response from

the general public, besides supporting ground water recharge of that area through rain water harvesting. Up to May 2017, 2,87,247 No. of people have visited the Eco Park. Therefore, in order to provide additional attraction to this unique facility, the Hon'ble Chief Minister announced under Rule 110 of Legislative Assembly that an Aquarium cum Aquatic Virtual Reality Centre will be established at this Eco-Park. This unique facility is to be created at a cost estimate of Rs.6 crore. The agency has been finalized through tender process and works have been commenced.

#### 7.37 Modernization of Fish Markets

Fish markets play a crucial role in supplying hygienic good quality fish to the consumers. Most of the fish markets in the State are under the control of the Civic bodies/ fishermen co-operative societies. Upgradation of these fish markets with cold storage and other hygienic modern facilities will enable fishermen to fetch a fair price for their catch besides providing quality fish to the public.

The NFDB has accorded administrative sanction for modernizing/construction of 21 fish markets at a total cost of Rs.14.25 crore (40% financial assistance for 20 fish market and 50% financial assistance for one fish market).

Construction of fish market at Neelankarai and Besant Nagar have been completed and put into use. The remaining 19 works are under progress.

Considering the financial deficit of the Civic bodies/ fishermen co-operative societies, the Government provides 50% financial support in the remaining 60% of the amount required for implementation of this scheme. The Civic bodies /fishermen co-operative societies should contribute only 10% of the project cost from its own funds. For the year 2016-17, the NFDB has enhanced its assistance to 50% of the project cost.

The NFDB has released Rs.83.95 lakh from its share as  $1^{st}$  installment and the State Government released Rs.84.24 lakh from its share as  $1^{st}$  installment. These amounts have been released to the respective Civic Bodies / Municipal Corporation and the works are in progress.

In pursuance to the announcement made by Hon'ble Chief Minister in the Legislative Assembly under Rule 110, the Government on war footing, initiated action and reconstructed the damaged fish market at Nadukuppam at a cost of Rs. 14.43 lakh to restore the livelihood of fishers. The Construction of Permanent fish market is under progress.

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#### 7.38 Fishermen Housing

For the year 2016-17, under the scheme, "Chief Minister's Solar Powered Green House," the Government allocated 500 houses to benefit marine and inland fishermen and construction of houses are under progress through District Rural Development Agency. Further, the Government has issued administrative approval to allocate 5,000 houses exclusively for fishermen in the State, under Centrally sponsored- Blue revolution scheme in line with, " Indira Awaas Yojana" and house will be constructed through Department of Rural Development and Panchayat Raj.

#### 8. INLAND FISHERIES

Globally, the fish production from capture fisheries resources has reached a stagnation level and experts say no further increase is expected. Aquaculture is one of the promising sectors to meet out the nutritional security of ever growing population. Inland Fisheries and Aquaculture are important sectors of the State which generate employment opportunities and better access to protein rich food to the rural masses.

Though Tamil Nadu has 3.83 lakh hectares of water spread area amenable for fisheries development, these water bodies mainly depend on the seasonal rains. The duration of water retention in most of the water bodies is very short. Poor and erratic rain fall, reduced retention of water in the water bodies, mismatch between breeding season of fishes and water availability for quality fish seed production, non-availability of low cost and quality feed are the factors limiting the inland fish production in the State.

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In order to overcome the limitations, the Fisheries Department is taking the following measures:

- Adopting Eco friendly and sustainable fish
   / shrimp aquaculture
- Introduction of fish seed rearing in floating cages in water bodies
- Adopting intensive cage farming in reservoirs
- Creation of fish seed banks to ensure the availability of fish seeds throughout the year
- Undertaking intensive fish culture in irrigation tanks
- Integrating fish culture in farm ponds / multipurpose farm ponds with agriculture to provide additional income for Farmers.
- Introduction of culture technology for fast growing fishes viz., Amur Carp, Jayanthi Rohu, Genetically Improved Farmed Tilapia

(GIFT) and Pangasius, dissemination of knowledge for its propagation and establishing hatcheries for these species.

- Encouraging farmers by providing subsidy for setting up of infrastructural facilities for fish/prawn hatchery, fish culture in grow out ponds, feed mill and hygienic marketing infrastructure.
- To enhance the fishing efficiency of inland fishermen.
- Creating job opportunities by promoting ornamental fish culture to rural women and youngsters.

#### 8.1 Reservoir Fisheries

In Tamil Nadu there are 61 reservoirs comprising of major, medium and small reservoirs and its fisheries management is under the control of the Fisheries Department. Among these, 53 reservoirs are directly under the control of the Fisheries Department and 8 reservoirs are under the control of Tamil Nadu Fisheries Development Corporation Limited (TNFDC) to augment the Inland Fishery Wealth.

- The objective is to increase fish production and revenue of the Inland fishers who depend on these reservoirs for their livelihood and to increase the productivity by leasing out the fishery rights of all 53 reservoirs managed by the Fisheries Department.
- Leasing of these reservoirs is being carried out in a phased manner. The reservoirs are leased out for a period of 5 years with an escalation of 10% per year, with condition that the lessee should employ the traditional fishermen who depend on these reservoirs.
- So far, 35 reservoirs have been leased out and the Government has realised

Rs.30.75 crore. Action is being taken to lease out the remaining reservoirs.

#### 8.2 Fish seed Production / Fish seed Rearing Centres

- There are 7 Fish Seed Production Centres functioning under the control of Fisheries Department and one fish seed production centre under Tamil Nadu Fisheries Development Corporation Limited. 43.96 crore early fry were produced in the year 2016-17.
- There are 34 fish seed rearing centres functioning under the control of the Fisheries Department and 5 fish seed rearing centres under the control of Tamil Nadu Fisheries Development Corporation (TNFDC). During 2016-17, 506.92 lakh fingerlings have been produced from the fish seed rearing centres under the control

of Fisheries Department and are supplied for stocking in Government and Private water bodies.

- The annual requirement of Fish fingerlings in the State is estimated at 70 crore. The fingerling production of Tamil Nadu from both Department and private sector during 2016-17 was 64 crore. The gap between fish seed demand and production has been reduced from 8.73 crore to 6 crore during 2016-17.
- An additional area of 34.8 ha both in Government and private sector have been developed / created with funding support from National Agriculture Development Programme (NADP), National Mission for Protein Supplement(NMPS), Irrigated Agriculture Modernization and Water Bodies Restoration and Management

(IAMWARM), National Bank for Agriculture and Rural Development (NABARD), etc.

# 8.3 Blue Revolution: Integrated Development and Management of Fisheries

The Government of India have accorded administrative approval for the Implementation of Central Sector Scheme on Blue Revolution: Integrated Development and Management of Fisheries during the year 2016 – 17, at an estimated cost of Rs.19.85 crore and released 50% Central assistance of Rs.9.925 crore. The details of the scheme is listed below:

#### Table:14

#### Blue Revolution: Integrated Development and Management of Fisheries

(Rs. in lakh) Total Project Cost **Central Share** Beneficiary Share Proposed Target SI. No Item I. Freshwater Aquaculture 1. Construction of new 60. 420.00 210.00 210.00 ponds and tanks ha. (freshwater) including sluice gates, aeration & feed storing shed, etc. 2. Renovation 30 105.00 52.50 52.50 of MGNERGA farm ha. ponds tanks 1 (freshwater) 35.00 17.50 17.50 3. Renovation of existing 10 ponds ha. tanks / (freshwater) 4. Input cost for 100 150.00 75.00 75.00 freshwater fish ha. culture (newly constructed & renovated ponds) Solar power support 5. 4 60.00 30.00 30.00 system for unit aquaculture s Sub-Total (A) 770.00 385.00 385.00

II.	Brackish Water Aquaculture				
6.	Construction of new ponds and tanks (Brackishwater) including sluice gates, aeration & feed storing shed, etc.	40 ha.	280.00	140.00	140.00
7.	Renovation of existing ponds / tanks (Brackishwater)	60 ha.	210.00	105.00	105.00
8.	Input cost for brackishwater shrimp culture (Newly constructed or renovated)	100 ha.	300.00	150.00	150.00
	Sub-Total (B)		790.00	395.00	395.00
III	Marine Fisheries				
9	Assistance to traditional fishermen for replacement of traditional wooden boat in to FRP boat.	100 Nos	425.00	212.50	212.50
	Sub-Total (C)		425.00	212.50	212.50
Grand Total (A + B + C)		1985.00	992.50	992.50	

During 2016-17, the Government have released a sum of Rs.9.925 crore (General category: Rs.8.275 crore and SC category: Rs.1.65 crore) towards implementation of Central Sector Scheme on Blue Revolution.

#### 8.4 District Fish Farmers Development Agencies (DFFDA)

- In Tamil Nadu, the District Fish Farmers Development Agencies (DFFDA) created by merging Freshwater Fish Farmers Development Agency (FFDA) and Brackish water Fish Farmers Development Agency (BFDA) have started functioning in 31 districts except Chennai, in order to popularise fish culture activities and to generate employment opportunities in rural areas.
- The main activities of DFFDA is providing technical guidance and encouraging farmers to take up fish culture by extending subsidy assistance, besides imparting technical training and extension support to fish farmers. These District Fish Farmers Development Agencies are

functioning under the Chairmanship of the respective District Collectors.

- Through District Fish Farmers Development Agencies (DFFDA), an area of 7,700 ha has been brought under fish culture. Further, 24,600 ha of irrigation ponds and tanks are also being utilized for fish culture.
- > In order to develop eco-friendly and sustainable brackish water aquaculture, the District Fish Farmers Development Agencies (DFFDA) functioning in the coastal districts of Tamil Nadu are developing and regulating Brackish water aquaculture by enforcing Coastal Aquaculture Authority (CAA) Act.2005. So far 1,739 shrimp farms have been registered with Coastal Aguaculture Authority (CAA).

#### 8.5 Development of Cold Water Fisheries

The upland / cold waters in the Nilgris district and some parts of Western Ghats are suitable for sport fishing. This department takes pride in operating the first Trout hatchery established during 1906 in Southern India at Avalanche, Udhagamandalam. The trout fingerlings produced from this hatchery are stocked in the Trout streams in The Nilgiris district for stock enhancement.

#### 8.6 Fish Disease Diagnostic Centre

The Fisheries Department has been strengthened with a Fish disease diagnostic Centre and Mobile laboratory at Chetpet, Chennai at a cost of Rs 1.25 crore with the financial support of National Agriculture Development Programme (NADP). This laboratory is catering to the needs of aqua farmers and ornamental fish culturists in the

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State. In addition, to analyze soil and water quality at field level, a well equipped mobile laboratory is attached to this centre.

## 9. EXTENSION AND TRAINING

## 9.1 Maritime Education for Fisher Youth

The Government, with the intention of improving skills and creating employment opportunities to the fisher youth, extends financial assistance to the children of active fishermen families at the rate of Rs.50,000/- per person for undergoing 6 specific courses on Maritime Education notified by the Government. The Government has sanctioned an amount of Rs.50 lakh for the year 2016-17. An amount of Rs.42.50 lakh has been released to 127 fisher youths from 2014-15 to 2016-17.

This scheme will be continued for the year 2017-18 also.

#### 9.2 Imparting training to Fisher youth to aid them for joining in Indian Navy and Indian Coast Guard

In accordance with the announcement made by Hon'ble Chief Minister for "Imparting special training to the twelfth passed fisher youth to assist them in joining Indian Navy and Indian Coast Guard as an alternative livelihood and employment opportunity", under rule 110, the Government has sanctioned an amount of Rs.1.04 crore.

The training will be given to 300 fisher youths in 6 batches in one year in collaboration with Coastal Security Group of the State. The eligible fisher youth will be selected and training will be imparted soon.

#### 9.3 Extension Activities

The Fisheries department is well equipped with Extension & Training wing to disseminate the welfare schemes of the Government effectively to the fishers, fish farmers and other stakeholders.

- Five propaganda vehicles have been exclusively designed with inbuilt extension aids for conducting awareness campaigns and used in various marine and inland fishing villages.
- The Fisheries Department participates in various exhibitions and trade fairs, and disseminates technical knowledge to fishermen/farmers.
- Various need-based training programmes for stakeholders are being conducted with the funding support from National Agriculture Development Programme (NADP) and National Fisheries Development Board (NFDB) and Government of India.

# 9.4 Fisheries Statistics

The Fisheries Statistical data as well as achievements of the Department are being published every year through an annual publication titled "Fisheries Statistics". This publication is useful for the Planners, Research scholars and Policy makers to frame suitable measures for conservation and sustainable use of resources.

## **10. SPECIAL PROJECTS**

## **10.1** National Agriculture Development Programme (NADP) - 2016-17

The following schemes are implemented under NADP during 2016-17 at a cost of Rs.14.17 crore.

 Table:15

 National Agriculture Development Programme (2016-17)

SI. N o	Name of the Scheme	Project Cost (Rs. in lakh)	Present Stage
1	Biological control of aquatic weeds by stocking of Grass carp in Aquatic weed infested water bodies of Tamil Nadu	101.25	Under this scheme, target fixed for stocking of 28.29 lakh Grass carp seeds in 5,659 ha water spread area. Of which, 3209.50 ha has been stocked with 16.05 lakh Grass carp seeds. Remaining Stocking is in progress
2	Expansion of fish culture area by encouraging farmers of Tamil Nadu	53.00	Subsidy will be provided @ Rs.2.10 lakh per ha to the interested farmers for excavation of fish pond and for purchase of fish seeds. Under this scheme 24.76 ha ponds were excavated and subsidy was released.
3	Cage culture of Cobia and Lobster at Sippikulam and Keelavaipar coastal villages in Thoothukudi District	53.63	Under this scheme, 10 cages will be installed at Sippikualm and Keelavaippar coastal villages in Thoothukudi district and each cage will be allotted to 4 fishermen cooperative society members. 10 cages were fabricated and installation of cages are in progress. 40 FCS members will be benefitted.

4	Establishment of stunted fingerlings production unit and renovation of nurseries at Manimuthar Government Fish farm	80.37	Additional infra-structure facilities will be created at Manimuthar Government Fish seed farm to ensure availability of stunted fish seeds throughout the year and to meet out the fish seed demand. Under this project renovation of 3,400m <sup>2</sup> breeder ponds and 9 nurseries were completed.
5	Improvement of fish farm, Tilapia hatchery and Seed rearing unit in Krishnagiri Government fish farm	200.00	Additional infrastructure facilities are being created in the Government GIFT Fish Seed Hatchery at Krishnagiri to enhance the GIFT seed production. Construction works are in progress.
6	Intensive fish seed rearing with aeration and water quality maintenance with probiotics in Government fish seed farm at Lalpettai, Cuddalore District	5.47	This project envisages use of aerators and probiotics in the Government fish seed rearing farm at Lalpettai to enhance survival rate and fingerling production by improving better water quality management. Under the scheme, Farm equipments were purchased. Intensive fish seed rearing is in progress.

7	Improvisation of infrastructure facilities at Government fish seed farm, Mettur Dam, Salem District	168.50	To produce and supply quality fish seed, creation of additional infrastructure facilities at Mettur will be taken up. Work is in progress.
8	Repair and renovation of Sathanur fish farm under the control of Tamil Nadu Fisheries Development Corporation Limited (TNFDC)	240.00	Work order issued and works are in progress.
9	Extending subsidy assistance to Fishing crafts in the West coast to take up squid jigging	25.50	Extending subsidy assistance to the motorized traditional crafts to procure squid jigging equipments for catching squids, under diversified fishing methods. Subsidy released to 46 beneficiaries in Kanniyakumari District.
10	Establishment of Modern Mobile Sea Food Restaurant by Tamil Nadu Fisheries Development Corporation Limited (TNFDC)	57.50	Design for modern mobile restaurant finalised. Vehicle Body fabrication is in progress.
11	Predator Fencing in Aliyar, Amaravathy and Thirumoorthy Fish Farms by Tamil Nadu Fisheries Development Corporation Limited (TNFDC)	77.25	To prevent birds predation of fish fingerlings, fencing will be provided at the top of fish ponds which will ensure better survival of fish fingerlings. Work is in progress.

12	Production & Marketing of Ready to Cook Sea Food Products by Tamil Nadu Fisheries Development Corporation Limited (TNFDC)	58.25	Establishment of production and marketing centre for hygienic preparation of ready to cook fish products is in progress.
13	Establishment of modern hygienic retail fish stalls in 5 places of Tamil Nadu by TAFCOFED.	50.00	Under the scheme, establishment of modern hygienic retail fish stalls to sell ready to cook & value added fishery products etc., has been completed at Neyveli, Paramakudi and Nagercoil.
14	Centralised Kitchen for Sea Food Products and Training Centre for SHG in Chennai by TNFDC.	246.19	Establishment of centralised kitchen for preparing value added sea food products is in progress.
	Total	1416.911	

## 10.2 Tamil Nadu Irrigated Agriculture Modernization Project (TN IAMP)

To improve water delivery through modernization of irrigation system, improved water management and enhanced productivity adopting climate resilience of irrigated agriculture with improved Agricultural diversification & enhancing alternate livelihoods through Livestock and Inland Aquaculture the Tamil Nadu Irrigated Agriculture Modernization Project (TN-IAMP) envisions improving the service delivery and enhancing unit productivity of water in a Sub-basin frame work. Tamil Nadu Irrigated Agriculture Modernization Project (TN-IAMP) has proposed to cover 66 Sub-basins at an estimated cost of Rs.39.50 crore in phased manner.

During the 2017-18 (Phase–I), 18 Subbasins have been identified. Accordingly, the Revised Detailed Project Report at an estimated cost of Rs.27.83 crore has been prepared and sent to World Bank for approval.

#### 11. FISHERIES CO-OPERATIVE SOCIETIES

The Fisheries Co-operative Societies play a pivotal role in the upliftment of fishermen and fisherwomen in the State. The Department is executing various welfare schemes to fishermen / fisherwomen through Fisheries Co-operative Societies. About 7.21 lakh fishermen / fisherwomen have been enrolled as members of 1,431 primary Fishermen / Fisherwomen Co-operative Societies / District Co-operative Federation / Apex Co-operative Federation. Fishermen Cooperative Societies are operating 51 full time Fair Price Shops and 15 part time Fair price shops.

Elections were conducted for 1,431 Fisheries Cooperative Societies functioning under the control of Commissioner/Director of Fisheries and 10,091 elected Board of Directors assumed charge of these Societies. Presently all the Fisheries co-operative societies are managed by the Elected Board of Management of the societies. The details of the Societies / Members are given in the following table

S	ociety	No. of Societies	Members enrolled
Primary Societies	Co-operative		
Marine Co-operative	Fishermen Societies	559	3,66,357
Marine Co-operative	Fisherwomen Societies	460	2,50,276
Inland Co-operative	Fishermen Societies	303	87,399
Inland Co-operative	Fisherwomen Societies	71	8,009
Other types		26	7,283
Total Numb and membe	per of societies rs enrolled.	1,419	7,19,324
District Co-operative	Fishermen Federation	11	975
Tamil Nadu Fisheries Federation	u State Apex Co-operative	1	785
	TOTAL	1,431	7,21,084

Table: 16Details of Members of Fisheries Co-operative Societies

## 12. TAMIL NADU FISHERMEN WELFARE BOARD (TNFWB)

Tamil Nadu Fishermen Welfare Board established with a view to ensure social security and well being of fishermen and labourers engaged in fishing and allied activities, is functioning with its Head Office at Neelankarai, Chennai. A total of 4.47 lakh fishermen / fisherwomen labourers are enrolled as members in the Board. As per the provisions of the TNFWB Act, so far a sum of Rs.17.24 crore has been collected as contribution from various agencies.

The Welfare schemes being implemented by the Tamil Nadu Fishermen Welfare Board are as follows:

Table: 17Details of Welfare Schemes being implemented by<br/>the Fishermen Welfare Board

SI. No	Details of Relief Assistance	Relief / Assistance per beneficiary (Amount in Rs)
1.	Accident Relief	
	a) Death due to Accident	1,00,000
	b) Loss of both hands	1,00,000
	c) Loss of both legs	1,00,000
	<ul> <li>d) Loss of one hand and one leg</li> </ul>	1,00,000
	<ul> <li>e) Loss of sight in both eyes</li> </ul>	1,00,000
	f) Loss of one hand or one leg	50,000
	<ul> <li>g) Loss of limbs due to Major injuries other than the above items</li> </ul>	20,000

2	Death during fishing or after fishing due to reasons other than Accidental death				1,00,000
3	Fishermen Missing duri	1,00,000			
4	Natural Death	-	-		15,000
5	Funeral Expenses			2,500	
6	Assistance for Day scholar Education to son and			Hostellier	
	daughter of the Members	Boys	Girls	Boys	Girls
	a) Pass in 10 <sup>th</sup> Std	1,250	1,500		
	b) Pass in 12 <sup>th</sup> Std	in 12 <sup>th</sup> Std 1,750 2,000			
	c) ITI and Polytechnic	1,250	1,750	1,450	1,950
	d) Bachelor Degree	1,750	2,250	2,000	2,500
	e) Post Graduate Degree	2,250	2,750	3,250	3,750
	<ul> <li>f) Under Graduate</li> <li>Professional Courses</li> <li>(Law, Engineering,</li> <li>Medicine, etc.)</li> </ul>	2,250	2,750	4,250	4,750
	g) Post Graduate Professional Courses	4,250	4,750	6,250	6,750
7	Marriage Assistance	Male	Female		
	a) Marriage Assistance to Member 3,				5,000
	b) Marriage Assistance to son / daughter 3,000 of a Member				5,000
8	a) Delivery @ Rs.1,000/- per month for 6 months				6,000
	b) Miscarriage				3,000
	c) Termination of Pregnancy				3,000

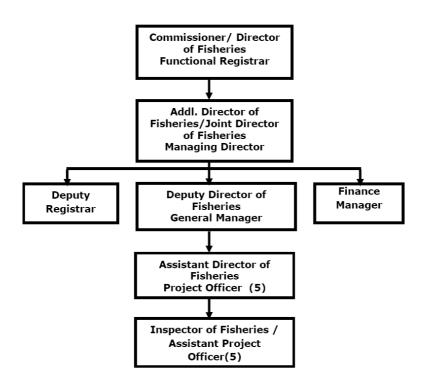
During 2016-17, the Tamil Nadu Fishermen Welfare Board (TNFWB) has settled 5,462 claims amounting to Rs.2.90 crore, have been settled under various welfare schemes. In order to ensure transparency in disbursement of relief/ assistance, within shortest period of time, the relief assistance is being disbursed to beneficiaries through National Electronic Fund Transfer (NEFT).

## 13. TAMILNADU STATE APEX FISHERIES CO-OPERATIVE FEDERATION LIMITED (TAFCOFED)

Tamil Nadu State Apex Fisheries Co-operative Federation Ltd., (TAFCOFED), has been registered under Tamil Nadu Co-operative Societies Act, 1983 and functioning since 19.10.1992 with its headquarters at Chennai. At present, 483 Marine Fishermen Co-operative Societies, 151 Inland Fishermen Co-operative Societies, 171 Fisherwomen Co-operative Societies and 9 District Fishermen Co-operative Federations have been enrolled as members in TAFCOFED with a total share capital of Rs.91.725 lakh.

Figure:2

Organizational Setup of Tamil Nadu State Apex Fisheries Cooperative Federation



The important schemes being implemented by Tamil Nadu State Apex Fisheries Co-operative Federation Ltd., (TAFCOFED) are as follows:

#### 13.1 Supply of sales tax exempted Subsidised Industrial Kerosene to the Motorised Fishing Crafts

During 2016-17, TAFCOFED had supplied 3,968 KL and for 2017-18 (up to June, 2017) 812 KL of sales tax exempted subsidised Industrial Kerosene to the traditional motorised fishing crafts in Thoothukudi and Tirunelveli Districts through 13 primary Fishermen Co-operative societies and earned revenue of Rs.29.59 lakh.

#### 13.2 Supply of Sales Tax exempted Diesel for Fishing Crafts

During 2016-17, TAFCOFED had supplied 17,605 KL and for 2017-18 (up to June, 2017) 1,902 KL of sales tax exempted diesel to Mechanised and Motorised fishing boats through 13 diesel bunks established in coastal districts and earned a revenue of Rs.3.27 Crore.

## 13.3 Modern Fish Stalls

**13.3.1** In order to supply good quality fish to general public at a reasonable price, TAFCOFED is operating one Modern fish stall with financial assistance from National Fisheries Development Board (NFDB) at a total cost of Rs.10 lakh at Ramanathapuram and construction of another stall at Chennai is in progress.

**13.3.2** TAFCOFED is constructing 5 Modern fish stalls at a total cost of Rs. 50 lakh in 5 towns of Tamil Nadu with financial assistance from NADP.

## **13.4** Supply of Fish Transport Vehicles

In order to transport the catch to the nearby markets on time and to fetch better price, TAFCOFED had supplied 10 fish transporting vehicles at a cost of Rs.71 lakh to 10 Marine and Inland Fisheries Cooperative Societies in Backward Blocks under State Balanced Growth Fund (SBGF).

# 13.5 Supply of Insulated Ice Boxes under Marine Products Export Development Authority (MPEDA) subsidy

During the year 2017-18, TAFCOFED had supplied 105 Insulated Ice boxes at a cost of Rs.1.44 lakh with 25% subsidy assistance from Marine Products Export Development Authority (MPEDA).

## **13.6 Training Programmes**

**13.6.1** During 2016-17 TAFCOFED had trained 412 deep sea going fishermen of Tamil Nadu in "Basics of Seamanship and Navigation, Electronic equipments and Maintenance of Marine Engine" with technical assistance from Central Institute of Fisheries Nautical

Engineering and Training (CIFNET) with financial assistance from NFDB.

**13.6.2** TAFCOFED had trained 1,593 members of fisherwomen co-operative societies in coastal districts in "Value added fish products" training programme with the financial assistance from National Fisheries Development Board.

# 13.7.1 Establishment of Retail Outlet for selling of Diesel and Petrol at Old Mahabalipuram Road (OMR), Chennai

In order to improve the Federation revenue and towards self sufficiency TAFCOFED had established and operating a Retail Outlet for selling Diesel and Petrol at Vaniyanchavadi, Old Mahabalipuram Road(OMR), Chennai at a cost of Rs.80 lakh.

## 13.7.2 Establishment of Modern Fish Food Restaurant

Tamil Nadu State Apex Fisheries Cooperative Federation will establish a Modern Fish Food Restaurant at a cost of Rs.2 crore at Vanianchavadi in Kancheepuram District of which, NADP assistance will be Rs.89 lakh and the remaining amount of Rs. 1.11 crore will be out from the Federation funds. met The construction work is in progress.

## 14. TAMIL NADU FISHERIES DEVELOPMENT CORPORATION LIMITED (TNFDC)

The Tamil Nadu Fisheries Development Corporation Limited was established in 1974 as a State Owned Public Sector Undertaking with an authorized Share Capital of Rs.5 crore and a paid up Share Capital of Rs.4.45 crore.

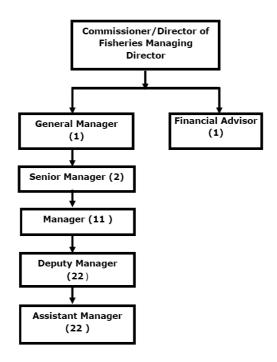
The Board of Directors are appointed by the Government of Tamil Nadu. 121 employees are working at present in various categories.

The organizational setup of Tamil Nadu Fisheries Development Corporation Limited is depicted below:-

Figure:3

Organizational Setup of Tamil Nadu Fisheries

**Development Corporation** 



#### 14.1. Fish seed Production

Tamil Nadu Fisheries Development Corporation Limited is having a total fish seed rearing area of 3.83 hectares at Sathanur, Aliyar, Amaravathy, Thirumoorthy, Palar & Porandalar Reservoirs. Quality Fish seeds produced by the TNFDC are stocked in the reservoirs managed by the TNFDC besides supplying to the Fisheries Department and private fish farmers.

During the financial year 2016-17, the Corporation has produced 182 lakh of early fry and 33.33 lakh of advanced fingerlings and a sum of Rs.72.12 lakh was realized as revenue. During this financial year, up to June 2017, 8.50 lakh fish seed hatchlings have been produced and a sum of Rs.0.34 lakh was realized as revenue.

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# 14.2. Reservoir Fisheries Management

Systematic scientific stocking of fish seeds is being done for sustainable fish production in eight reservoirs which are managed by Tamil Nadu Fisheries Development Corporation Limited.

During the financial year 2016-17, 649.34 tonnes of fish have been harvested from the reservoirs to the tune of Rs.600.29 lakh. During the current financial year, up to June 2017, 131.27 tonnes of fish were harvested and a sum of Rs.122.33 lakh was realised as revenue.

# 14.3. Production and Marketing of Ornamental Fishes

TNFDC has established ornamental fish production centers at Aliyar and Thirumoorthy Nagar. An Aquarium-cum-Sales Centre has also been established at Teynampet, Chennai.

During the Financial Year 2016-17, an amount of Rs.20.05 lakh was realised through

the production and sale of ornamental fishes and aquarium accessories. During this financial year, up to June 2017 a sum of Rs.5.10 lakh revenue has been realised.

#### 14.4. Fish Marketing

Tamil Nadu Fisheries Development Corporation Limited is marketing fresh fish and sea food through its chain of retail fish stalls and mobile units in Chennai, Madurai, Coimbatore, Pollachi, Ooty, Thoothukkudi, Tirupur, Kanniyakumari and Thiruvannamalai. During the financial year 2016-17, 939.48 tonnes of fish have been marketed, earning a profit of Rs.103.16 lakh. During this financial year, up to June 2017, TNFDC has sold 192.36 tonnes of fishes and a sum of Rs.13.52 lakh has been earned as profit.

## 14.5. Diesel Outlets

The Corporation is operating 31 diesel outlets in the Fishing Harbours and Fish landing

centres located all along the coastal area in the State to supply Sales Tax exempted high speed diesel to the Motorized traditional and Mechanized fishing crafts. The Corporation has supplied 84,392 KL of sales tax exempted high speed diesel during 2016-17 and realized a profit of Rs.1001.31 lakh. During this financial year, up to June 2017, TNFDC has supplied 9,327 Kilo litres of Diesel and a sum of Rs.67.06 lakh has been earned as profit.

# 14.6. Supply of sales tax exempted subsidised Industrial Kerosene to the Traditional motorised Fishing Crafts

Tamil Nadu Fisheries Development Corporation Limited is supplying sales tax exempted subsidized kerosene to the traditional motorized fishing crafts in Kanniyakumari District. 6,636 KL of Kerosene has been supplied during the financial year 2016-17, earning a profit of Rs.32.75 lakh. During this financial year, up to June 2017, TNFDC has supplied 1,810 KL of Kerosene to fishermen and a sum of Rs.3.34 lakh has been earned as profit.

#### 14.7. Management of Chetpet Eco Park:

Fisheries Department has established a beautiful Eco Park with Sport Fishing facilities at an estimated cost of Rs.42 crore at the Chetpet Lake which is located at the heart of the Chennai city. The Eco Park with the Boating facility, Children Play Area, Herbal Garden, Multilevel Car Parking, 3D Theatre, Food Court etc., is attracting a huge number of people every day. A total no. of 3,31,616 people have visited the Eco Park up to June 2017. An "Aquarium-cum-Aquatic Virtual Reality Centre" is being established at an estimated cost of Rs.6 crore in the Eco Park.

# 14.8. Other Schemes

The following are the new schemes that are under implementation:-

# 14.8.1. Construction of additional administrative office building

It is proposed to construct an additional administrative office building for Chennai fish marketing division at Santhome at an estimated cost of Rs.3.50 crore with TNFDC's own funds and the construction work is under progress.

# 14.8.2. Establishment of Modern Mobile Sea Food Restaurant by TNFDC Ltd.

The Corporation would establish 2 Nos. of modern mobile sea food restaurant for operating at Chennai and Mamallapuram to serve various sea food delicacies to the customers at an affordable price with an estimated cost of Rs.57.50 lakh under the NADP Scheme for the year 2016-17 and the works are in progress.

# 14.8.3. Establishment of Centralised Kitchen for Sea Food Products and Training Centre.

In accordance with the announcement made by the Hon'ble Chief Minister under rule 110, the TNFDC Ltd., would establish а Centralized Kitchen with Training facilities for Self Help Group Women for Production & Marketing of Ready to Cook and Ready to Eat fishery products at Royapuram, Chennai at an estimated cost of Rs.304.44 lakh, with the aim of promoting sea food consumption among the providing self-employment public and opportunities under the NADP Scheme for the year 2016-17 and the works are in progress.

#### 14.8.4. Repair & Renovation of Sathanur Fish Farm.

To improve the fish seed production capacity, the Tamil Nadu Fisheries Development Corporation Limited would carry out Repair and Renovation of fish seed farm at Sathanur Dam which is under its control at an estimated cost of Rs.240 lakh under the NADP Scheme for the year 2016-17 and the works are under progress.

# 14.8.5. Bird Fencing for Aliyar Fish Seed Farm.

To achieve maximum survival rate in fish seed production the Tamil Nadu Fisheries Development Corporation Limited would carry out Bird Fencing in Aliyar Fish Seed Farm at an estimated cost of Rs.77.25 lakh under the NADP Scheme for the year 2016-17 and the works are under progress.

# 14.8.6. Establishment of Online Fish Marketing facilities at Chennai.

The Tamil Nadu Fisheries Development Corporation Limited is taking sincere efforts to create awareness on the positive health aspects of sea food consumption. TNFDC Ltd., has established an online fish marketing facility on trial basis to the convenience of customers in Chennai Marketing Unit of TNFDC Ltd., at a cost of Rs.10 lakh. The facility/scheme was launched on 25.05.2017 by the Hon'ble Minister for Fisheries, Finance, Personnel and Administrative Reforms.

#### 14.9. Financial position

The Tamil Nadu Fisheries Development Corporation Limited by undertaking various commercial activities such as fresh fish marketing, sea food courts, diesel / kerosene sale and reservoir management etc. had earned a Profit of Rs.1,184.50 lakh for the year 2016-17. During the current financial year (up to June 2017) a sum of Rs.115 lakh has been earned as profit (unaudited).

# 14.9.1. Payment of dividend and Chief Minister's Public Relief Fund to Government.

During the year 2015-16 the Tamil Nadu Fisheries Development Corporation Limited paid a sum of Rs.1.82 crore to State Government as dividend. During the financial year 2016 -17, Rupees One crore has been paid to the Chief Minister's Public Relief Fund.

# 14.9.2. Contribution of TNFDC Ltd., for Fisheries projects and Fishermen Welfare Schemes

TNFDC paid a sum of Rs.1.03 crore for the year 2016-17, as its contribution to Tamil Nadu Fishermen Welfare Board.

The TNFDC has also contributed a sum of Rs.43.33 lakh to some of the Fisheries projects and Fishermen Welfare Schemes from its Corporate Social Responsibility (CSR) Fund as detailed below:-

#### Table: 18 Corporate Social Responsibility (CSR) Fund – Fishermen Welfare Schemes

Welfare Schemes	Amount (Rs.)
Turtle excluder device awareness campaign programmes	1,62,500
Modernization of fish market at Neelankarai	20,21,600
Modernization of fish market at Besant Nagar	1,50,000
Related fisherman Incidental expenses	4,45,282
Missing fishermen searching operation expenses	20,000
Establishment of Temporary fish market and fish marketing accessories to Chennai-Nadukuppam Fishermen	15,33,366
Total	43,32,748

## 15 Tamil Nadu Fisheries University (TNFU)

Tamil Nadu Fisheries University (TNFU), a professional Fisheries University funded by the State and was established on 19.06.2012 at Nagapattinam, Tamil Nadu with an outlay of Rs.18.10 crore to impart professional fisheries education, research and training for enhancing fish productivity and utilization in the state by following State Agricultural University pattern and syllabi.

# **15.1.** Vision of the University

The vision of the Tamil Nadu Fisheries University (TNFU) is "Harnessing the Science of Fisheries for Food, Nutrition and Livelihood".

# 15.2. Objectives

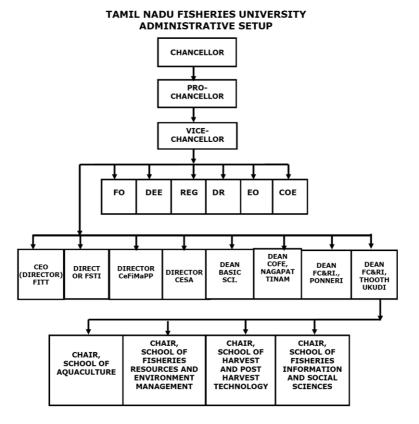
The objectives of Tamil Nadu Fisheries University (TNFU) are as follows:

- To impart quality professional education in different branches of Fisheries Sciences as the University may determine;
- To conduct organized research in frontier areas with the objective of developing cutting edge technologies in Fisheries Sciences;

- To provide extension services like training, consultancy, project formulation to fish farmers, fisher folk, unemployed youth and entrepreneurs in Fisheries Sciences;
- To facilitate comprehensive development of Fisheries Sciences for increased contribution to State economy and set bench mark standards through appropriate interventions in fisheries teaching, research and extension;
- To generate baseline data on aquatic biodiversity and fisheries resource potential;
- To generate high quality professionals in Fisheries Sciences by following Veterinary Council of India regulations as a model;

- To create better opportunities for marketing and value addition of fish and fishery products;
- To set up an aquatic disease diagnosis and surveillance system in the State;
- To create a Data Repository on Fisheries and Aquaculture resources of Tamil Nadu.

Figure:4



The Fisheries College and Research Institute, Thoothukudi, the second oldest college in the country was established in 1977. It offers B.F.Sc., M.F.Sc., and Ph.D., degree

Institute of Programmes. The Fisheries Technology started during 2012 at Ponneri in Thiruvallur District was upgraded to Fisheries College and Research Institute during 2014-15 for imparting the B.F.Sc., degree course and 60 students were admitted during the academic year 2016-17. In Nagapattinam, Institute of Fisheries Technology was upgraded to College of Fisheries Engineering for offering the B.E., (Fisheries Engineering) course first time in India. this academic (2016-17)Durina vear 20 students were admitted. Madhavaram and Vaniyanchavadi Campuses of Tamil Nadu Fisheries University (TNFU) are recognized for Post-Graduate Research Programmes.

# 15.3. Activities of Tamil Nadu Fisheries University

The activities of TNFU in the areas of Education, Research and Extension services are outlined below:

## 15.3.1 Education

Details of students admitted during the year 2016-17 at TNFU are furnished in Table 19

Course		&RI hukudi	FC&RI Ponneri Pattinam		Total		
	Boys	Girls	Boys	Girls	Boys	Girls	
B.F.Sc.,	25	25	32	27			109*
B.E., (Fisheries Engineering)					8	12	20
M.F.Sc.,	10	9	4				23
Ph.D.,	3	5	2	3			13**
Total			165				

Table: 19Students' admission strength

\* Includes NRI Student (2 Nos.) and Foreign students (2 nos)

\*\* Includes Foreign student – 1 no

The University is extending financial assistance in the form of State and Central Government scholarships and fellowships to the students for undergoing their undergraduate and postgraduate degree programmes. P.G and Ph.D., Students who are all admitted through TNFU entrance examinations were given TNFU merit scholarship of Rs.4,000/- and Rs.5,000/per month respectively. Various student amenities including a Placement Cell are available in the University to promote the interests of students in acquiring knowledge on various aspects of Fisheries science as well as in finding their suitable placements.

## 15.3.2. Research

SI. No	Project Name	Funding agency	Amount (in lakh)
1.	Aquatic Rainbow Technology Park	GoTN - TANII	1030.50
2.	Niche Area of Excellence in Fish Safety and Quality Assurance	ICAR	305.61
3.	Establishment of Shrimp Brood Bank at Kanniyakumari	NADP	198.91
4.	Establishment of Marine Finfish Hatchery System at Mandapam	NADP	184.50
5.	Establishment of Regional Fisheries Research and Extension Centre in Barur	NADP	121.04

Table: 20Details of ongoing Research Projects

SI. No	Project Name	Funding agency	Amount (in lakh)
6.	Novel molecular approaches for advancing prediction and mitigation of disease outbreaks in aquaculture for small farmers	DBT-BBSRC	109.91
7.	Aquatic Animal Diseases and environment management laboratory	NFDB - ICAR	80.43
8.	Freshwater Aquaculture Research and Extension towards enhancing Aquaculture Productivity and Fish Farmer Livelihood in Cauvery Delta Region	NFDB	46.04
9.	BiosecuredMicrobialFlocculentdrivenFarmingfordomesticatingeco-friendlyandvariableculturepracticesforVannameishrimp(Litopenaeus vannamei)andandMilkfish(Chanoschanos)inTamilNadu	Part - II	44.39
10.	Bioactive peptides from fish protein hydrolysates produced using endogenous proteinases from fish processing wastes	DST	39.97
11.	Food and biomedical application of marine collagen	State Science and Technology Commission, China.	30.35

SI. No	Project Name	Funding agency	Amount (in lakh)
12.	Impact of anthropogenic activities and seasonal variation in plankton biomass in Gulf of Mannar Biosphere Reserve in Thoothukudi District	GoMBRT, Ramanathapuram	10.50
13.	Sustainable Exploitation of Fisheries Resources through Co- Management in Kombudurai Fishing Village	FIMSUL-II	4.98
		Total	2,207.13

#### Table: 21

#### Newly Sanctioned Projects in the year of 2016-17

SI. No	Project Name	Funding agency	Amount (Rs.in lakh)
1.	Strengthening of Regional stations of Centre for Sustainable Aquaculture (CeSA), TNFU	NADP	549.09
2.	Establishment of Fish and Shellfish Health Certification and Disease Surveillance Laboratories in Tamil Nadu for enhancement of aquaculture production	NADP	491.07
3.	Development of Cost Efficient Feeds for Enhancing Freshwater Fish Production	NADP	398.00

SI. No	Project Name	Funding agency	Amount (Rs.in lakh)
4.	Farmed Pearl Spot ( <i>Etroplus</i> <i>suratensis</i> ) Production as an Alternative Livelihood to Promote Brackish Water Aquaculture Entrepreneurship for Fishers of Pulicat Lake	NADP	260.88
5.	Establishment of Multiplier Station for Breeding and Dissemination of Jayanti Rohu Seeds to Farmers	NADP	100.00
6.	Healthy shrimp and GIF Tilapia production through bio-floc based farming system: Development of technology and standard operating procedures	DBT	57.93
7.	Value chain analysis of farmed shrimp industry in Tamil Nadu	ICAR- ERP	12.00
		Total	1,868.97

# **Research Achievements**

A molecular method to authenticate processed shrimps of commercial importance was developed to monitor fraudulent practices of substituting low cost shrimps for high valued ones in commercial retail sale in restaurants, canteens and hotels as well as in export market.

- A low cost visual formalin detection kit was developed for field testing of fish adulterated with formalin with minimal preparation and processing time of 15 minutes and having sensitivity of 2 ppm.
- A Quality Index Method (QIM) was developed for the most popularly consumed fish of South Tamil Nadu coast, Pink ear emperor (Velameen in Tamil).

# 15.4. Memorandum of Understanding with other Universities/Institutes

During 2016, the Tamil Nadu Fisheries University has signed the following Memorandum of Understanding (MoU) between International Universities / Indian universities, National fisheries organizations, private aqua farms and feed industries.

Table: 22List of Memorandum of Understandings (MoU) Executed

SI. No.	University/Institute/Industry	Signed on
1.	Sri Venkateswara Veterinary University, Tirupathi	25.05.2016
2.	M/s. Rajshree Bio Solutions, Coimbatore	09.06.2016
3.	M/s. Blue Lagoon, Naduvur Matha Kuppam, Pulicat	09.06.2016
4.	M/s. Adisseo, France	14.06.2016
5.	M/s. NAAF Aqua Farm Private Limited, Kolathur	11.07.2016
6.	Agriculture Skill Council of India, Haryana	26.07.2016
7.	Prince of Sonkla University, Thailand	12.08.2016
8.	E.G.S. Pillay Engineering College, Nagapattinam	22.08.2016

## **15.5 Infrastructure Facilities**

To develop the infrastructure facilities of TNFU, the following infrastructure facilities are being established at a cost of Rs. 33.30 crore during 2016-17.

SI. No	Name of the work	Amount (in crore)
1.	Additional Infrastructure Development for Academic Improvement at FC&RI, Ponneri	10.00
2.	Additional Infrastructure Development for Academic Improvement at FC&RI, Thoothukudi	7.30
3.	Establishment of Centre for Post Graduate studies in Fisheries at Tamil Nadu Fisheries University OMR Campus, Vaniyanchavadi, Chennai	10.00
4.	Establishment of Fish Farmers Training Centre with Farmers Hostel, FREC, Madhavaram, Chennai	6.00
	TOTAL	33.30

 Table: 23

 Details of Infrastructure facilities

# 15.6 Advocacy / Certification / Consultancy services

This University is involved in certification of the seafood products through the Fish Quality Monitoring and Certification Centre at Thoothukudi. An amount of Rs.4,26,850/- was realised as income by this service. The State Referral Laboratory for aquatic animal diseases surveillance at Madhavaram, Chennai has generated an income of Rs.1,83,800/- for providing fish disease certification services during 2016-17. Another Regional Laboratory for aquatic animal diseases surveillance is also functioning at Thoothukudi.

#### 15.7. Extension Activities

This University is instrumental in bringing out developments in the fisheries sector in the State of Tamil Nadu through various extension and training programs covering all aspects, including farm advisory services, answer to farmers' queries, organizing Mass awareness programmes, Fish farmers' meets, Stakeholders linkage through mass media, Industry-Institute meets and Exhibitions. The University has been conducting various training programmes with the objective of planning and execution of all outreach programmes in close coordination with other line departments / agencies such as the Dept. of Fisheries, Tamil Nadu Fisheries Development Corporation and other Government organizations.

During 2016-17, this University has organized 96 vocational and entrepreneurial programmes, 2,178 in which training beneficiaries were trained . This University has also organized 46 Awareness programme on Hygienic maintenance of fishing harbour and landing centres, Hygienic handling of fishes etc. A total of 1,903 beneficiaries were trained. During 2016-17, 205 beneficiaries were given skill development training funded by Tamil Nadu Skill Development Corporation at a cost of Rs. 49.30 lakh in colleges and centres on various aspects.

More than 20 pamphlets / folders on important fisheries technology were released for the benefit of the various stakeholders. This university publishes farm journal Meenvalasudar Tamil carrying information on fisheries in technology, current developmental in fisheries sector, various schemes for the promotion of fisheries and success stories of farmers. This university also publishes the News letter in English to popularize the activities of the TNFU among various agencies and stakeholders associated with fisheries development. 3 Farm Schools on All India Radio (AIR) program on ornamental fish culture technology, Freshwater culture technology, Best management fish practices (BMP) in vannamei farming were broadcasted by the All India Radio stations .

The Fisheries Staff Training Institute (FSTI) under Tamil Nadu Fisheries University provide regular in service training, refresher and

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orientation courses on Specialized Fisheries topics to the State Fisheries Department Staff. It also conduct Faculty Development training to the teaching staff and training on various office procedures to the Administrative Staff of the Tamil Nadu Fisheries University. Training on specific fisheries aspects to the various stake holders is provided.

# 15.8. Future programs

- Establishment of demonstration unit for Intensive raceway and Bio-floc based larval rearing and lined ponds grow out system for *L. vannamei* at Tharuvaikulam
- Demonstration and Training for Farmers' Capacity Building at Regional Outstations of CeSA in TNFU
- Accredited Microbial Quality Testing Laboratory for Certification of Aquatic Food Products in South Tamil Nadu

- Establishment of Fisheries Techno Park cum Fish Processing Technology Business Incubation Centre
- Establishment of ornamental fish brood bank at Muttukadu
- Establishment of Fish feed mill at Muttukadu, Chennai.
- Development of Mobile apps in various aspects of fisheries and aquaculture by Centre for Fisheries Management, Planning and Policy (CEFIMAPP), TNFU.

# 15.9. Thrust areas of Research

- > Cage culture of fishes in open water bodies
- > Biofloc technology in fish farming
- > Culture of *L. vannamei* in freshwater
- Assessment of microbial risks and chemical residues in fish and shellfish

- Development of technology for the farming of Indian spiny loach, *Lepidocephalus thermalis* along with Indian major carps
- To strengthen the fisheries museum and convert it into an aquatic biodiversity referral center.
- Development of mobile app based fisheries information system for sustainable fisheries.
- Creation of fisheries database and Fish
   Tech Portal in Tamil
- Utilization of drifted seaweeds along the coast of Gulf of Mannar to use as biofertilizer for agricultural crops
- Bioremediation of seafood processing plant effluent using indigenous bacterial isolates.

# **16. FISHERIES DEPARTMENT - BUDGET** ALLOCATION FOR THE YEAR 2017-18

For the year 2017-18, a sum of Rs.768.32 crore has been provided in the budget. Out of this, the projected revenue expenditure is Rs.619.18 crore and the capital expenditure is Rs.149.14 crore.

## **17. CONCLUSION**

Fisheries sector plays a pivotal role in food supply and provides food security. It also acts as the primary source of employment to the coastal communities.

The efforts taken by the Government to promote deep sea fishing and diversification of trawl net boats into Tuna Long liners cum gill netter, by providing subsidy assistance will protect the life and property of our fishermen and mitigate the sufferings of our fishermen in Palk Bay. The Mariculture activities such as cage culture of marine fin fishes and seaweed culture especially in the Palk Bay area will provide alternate livelihoods to the fisher-folk who depend on capture fisheries.

The Government is always giving top priority to the safety and security of fishermen while fishing at mid sea. The Government has already provided lifebuoys and DAT (Distress Alert Transmitter) to the fishing crafts and VHF equipments will be supplied shortly to ensure sea safety.

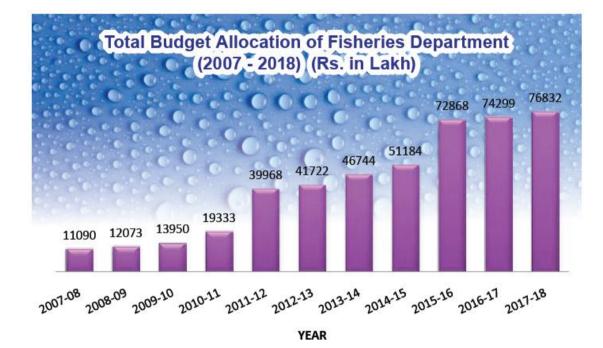
The Government fulfilled yet another promise of election manifesto for providing 5,000 houses exclusively for fishermen and allocated Rs.85 crore during 2016-17.

The Freshwater aquaculture activities on integration with agriculture will enhance the

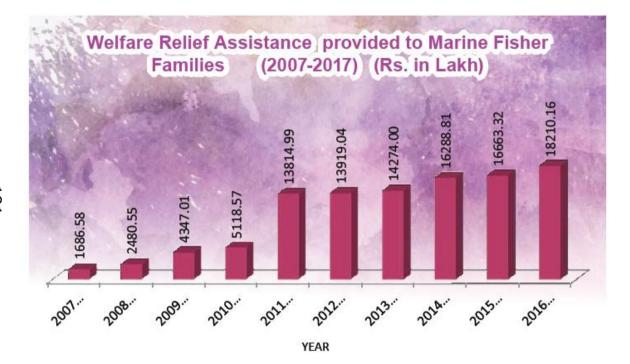
income of the farmers besides increasing the fish production. The establishment of 'GIFT' hatchery at Krishnagiri, development of fish culture in multipurpose farm ponds and cage culture in reservoirs will increase the fish production of the State to manifolds in the ensuing years.

Various development initiatives coupled with the conservation and management measures on strong scientific basis fuels the unstinted growth of the fisheries sector in the State. This Government has increased the annual budget allocation to all time new high of Rs.768.32 crore for the year 2017-18, and will continue to implement schemes with its policy of ecologically and environmentally sustainable fisheries development to bring prosperity in the life of the fishers which will in turn assist the State to achieve its goal of inclusive growth. The visionary guidance provided by our leader **Hon'ble Puratchi Thalaivi Amma** will help the Government to take steps to grow fisheries sector of the state by leap and bounds in the coming years.

> **D.Jayakumar** Minister for Fisheries, Finance and Personnel & Administrative Reforms.



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